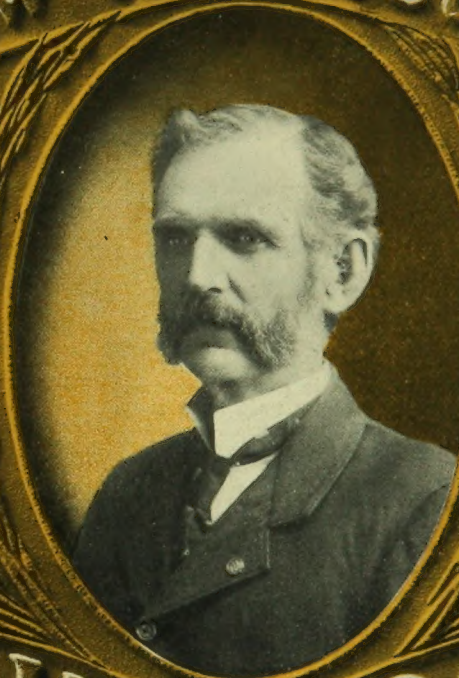


THE NEW HORTICULTURE



R·M·KELLOGG'S

GREAT CROPS  
OF STRAWBERRIES  
AND HOW TO GROW THEM

R·M·KELLOGG CO·  
Three Rivers ... Mich.

B.W. PAT. FRANKLIN CO· CHI.

1908



**THE KELLOGG Strain of Thoroughbred Strawberry Plants** holds the world's record for productiveness and quality of fruit. They are scientifically selected from mother plants of known fruiting vigor, and hence improve with the years. Our hundred acres of propagating beds for the crop of 1908 are the finest ever grown, beating all previous records. You want some of these plants, we are sure. Send your order early so that you will not be disappointed in failing to secure varieties you desire, as the demand for our plants is greater than the supply.

**PEDIGREE**—The pedigree of a plant must be known in scientific propagation, because it requires several years to breed up and develop it, and the line of ancestry must not be broken by propagating from any weak plant.

**THOROUGHbred PLANTS**—A thoroughbred plant is one possessing the best characteristics of its variety, the result of being grown continuously under the most favorable environment and the fixation of good qualities by annually selecting the desirable variations, discarding weaklings and restricting to prevent pollen and seed exhaustion; thus preserving a perfect balance between vegetative parts and fruit-producing organism.

**THE PEDIGREE OF THESE PLANTS**—The pedigree of each plant offered in this catalogue, unless otherwise stated in the description, shows the ancestry in lineal ascent to have been thoroughbred, as above stated, and they are believed to be perfect in their physical and fruiting organisms in all respects.

**COMMON PLANTS**—Plants, as commonly grown under ordinary conditions, without any systematic selection according to bud variation, and for the want of proper restriction, are more or less pollen-exhausted and therefore have a strong tendency to make runners rather than strong fruit buds. These common plants never will give the big crop of fancy berries that are produced by the Kellogg strain of plants.

**THE CAUSE AND THE EFFECT**—We have pointed out the cause of unfruitfulness in plants and have given our effectual remedy as proved by repeated definite experiments, which may be summed up as follows: The most congenial environment to induce better variations, continuously selecting those making the greatest improvements, and keeping them under restricted fruitage to develop their fruit-producing organism. These methods have met the warmest approval of the highest horticultural experts in the country, and especially that of the International Conference of Plant Breeders. We have been the pioneers in this work, and have the only establishment in the country having the perfect conditions required for this order of plant breeding.

**STOCK FOR PROPAGATION**—We make a specialty of furnishing fruit growers with Thoroughbred Plants for their propagating beds, from which they may grow perfect plants, which will respond to high culture with large berries and plenty of them, as well as for general planting.

**THE DEMAND**—Heretofore the demand has been beyond our ability to supply. Wherever these plants have been seen fruiting under good cultivation they have created a sensation, and in order to meet the demand we long ago discontinued the propagation of all other nursery stock and in 1907 had a larger acreage of the best developed plants we have ever grown; but the demand also is rapidly increasing and indications are that there will be a greater call for them in 1908 than in any previous year. Orders are filed in rotation of receipt and it is to your interest to have your order booked as early as possible, which will insure your getting the varieties selected. Our customers always are the leaders on the markets.

**THE PHOTOGRAPHS**—Typical specimens of each variety were photographed in the season of 1907 and engraved to show the size and form of the berries of different varieties, but the camera cannot do them justice, as the beautiful color, delicious flavor and firm texture cannot be put into the picture. The remarkable uniformity of berries of the same variety arises out of continued selection of those approaching most nearly to the ideal type. It is the result of skillful breeding for more than twenty years.

**THIS BOOK IS FREE**—Copies of this book will be sent free to any four of your friends with your name and compliments written on each book so they will know that you sent it. Send in your names. They must be persons interested in berry growing.

**COPYRIGHTS**—The various editions of this work have been duly copyrighted, covering engravings and all subject matter. All rights are reserved, and nurserymen will be held responsible for infringements in making up their catalogues.

**NO AGENTS ARE EMPLOYED BY US**—Scores of complaints come to us every year saying, "The plants I bought of your agents are worthless." Tree peddlers secure copies of this book and represent themselves as our agents, and then deliver common stock, to the loss and disgust of purchasers. You can get the genuine thoroughbred plants only by sending direct to us. Should anyone represent himself as our agent, offering to sell our plants, compel him to show his credentials. This will reveal his true character at once; for he will be unable to show any authority to sell our plants.

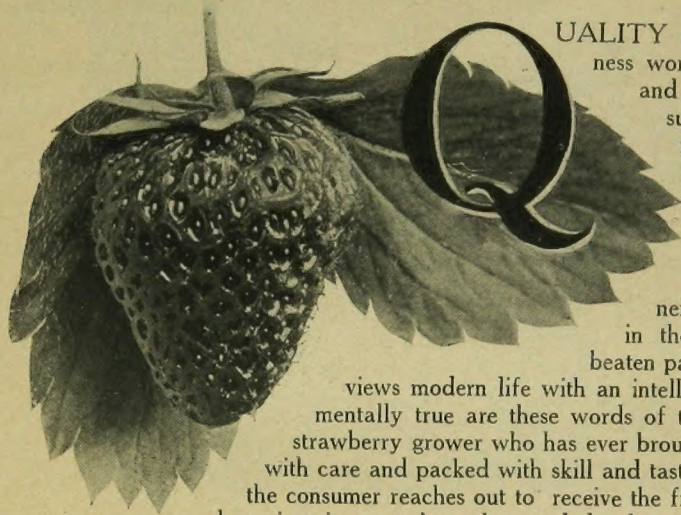
**REMITTANCES**—All remittances should be made by Postoffice or Express Money Order or by bank draft or registered letter. We shall not be responsible for any currency or coin sent in a letter. When private checks are sent, add 15 cents to cover cost of collection.

**REFERENCES**—Dun's and Bradstreet's commercial reports give us a high credit rating. Our special references are the First National Bank and the First State Savings Bank of Three Rivers, Michigan.

**ORDERS** sent in after March 15 must be accompanied by full payment to insure proper position in the files. Plants will be shipped at the proper time, as nearly as we can judge, for setting out in your locality, unless you give us special date for shipment. Orders received after April 15 will be shipped according to date of their receipt, providing they have been remitted for in full, regardless of special shipping dates.



# The Way to Success



QUALITY is the magic wand that in the business world transforms dullness into activity and changes uncertainty into assured success. The demand of the times is not for the Good or the Better, but is distinctly, emphatically, insistently, for the Best. Emerson says that "If a man can write a better book, preach a better sermon, or make a better mousetrap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door." And no man who

views modern life with an intelligent mind but realizes how fundamentally true are these words of the Concord philosopher. And no strawberry grower who has ever brought to market ideal berries, selected with care and packed with skill and taste, but knows how the glad hand of the consumer reaches out to receive the fruit and how readily that hand goes down into its owner's pocket, and deeply, too, to pay for that for which he so

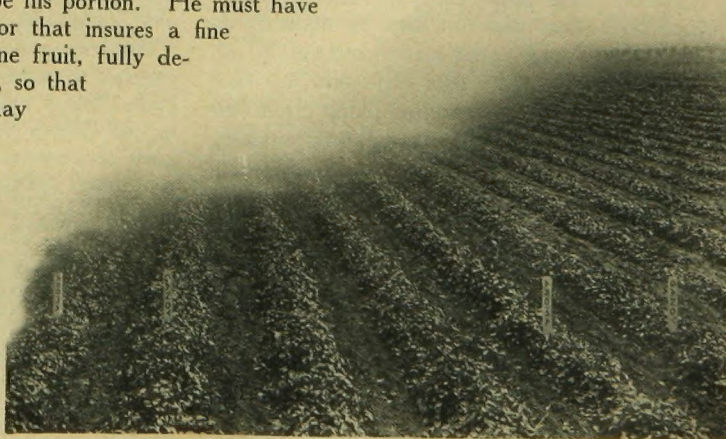
long had hungered.

The market never yet had a sufficient supply of the Best strawberries. Little berries, sour berries, soft, "squishy" berries—these by the trainload from Pensacola to Portland! The big red, firm, juicy, sweet, deliciously flavored strawberries—these are so rare that few persons are fortunate enough ever to have enjoyed the privilege of knowing that so fine a fruit actually exists to bless the world!

Why is this so? There are many causes, but the principal one is the quality, or lack of quality, of the plants set out by the grower. Some one eloquently has said that "Mother Earth may offer her choicest cradle, the sun may lavish his brightest rays, the gentle showers flood down upon the balmiest winds of spring to nourish the infant plant; but if the plant be the offspring of weak or perverted parentage, all the care of loving Nature, aided by the skillful hand of man, only emphasizes more strongly that 'whatsoever a man soweth that shall he also reap.'" Poor plants inevitably produce poor fruit. Quality in fruit can be had only where there is quality in the plants.

The commercial strawberry grower, therefore, must at the start consider the quality of his product and see to it that he makes no mistake in the choice of his plants, if he would find a ready market at profitable prices. But he also must take into account another factor, namely, Quantity—his plants must give him large yields of high-quality fruit, if success is to be his portion. He must have strong plants, full of the vigor that insures a fine foliage and huge masses of fine fruit, fully developed and ripened perfectly, so that the full value of each berry may be secured and the highest market price obtained.

This combination of Quality and Quantity are the prime essentials to success in strawberry production. This combination may certainly and uniformly be had in only one way, and that is



**THE KELLOGG WAY!**





A KELLOGG THOROUGHbred PEDIGREE MOTHER PLANT

THIS illustration shows the crown development of a mother plant of the Kellogg strain one year after setting in the fruiting bed. After the photograph was taken of the mother plant its crowns were separated and photographed as shown. Please note that there are seven crowns, all perfectly developed. This plant was taken from the fruiting bed of G. S. Carrigan of Paragould, Ark., in the spring in which it was to fruit its first crop. A strain of plants that builds up such a number of heavy crowns is the kind that grows the big crops of fancy strawberries you read so much about.

THE KELLOGG WAY involves several essential features which we shall in this book describe and explain in such a way as to make it possible for every reader to comprehend and put into actual practice:

First. Plants of high fruiting power fitted by selection and breeding to develop and ripen great crops of strawberries of high quality.

Second. Carefully prepared soil that shall be in every way capable of fulfilling the demands of such plants.

Third. Intelligent cultural methods under which both plant and soil shall be made to do their very best and render success certain.

Fourth. Scientific spraying—that is, such spraying as shall protect the plants from the attacks of insects and fungous diseases and keep them strong and vigorous for the accomplishment of the work they are intended to perform.

Fifth. Proper mulching, that carries the plants through the winter, brings them out in the spring in better condition even than they were the previous fall, and provides a clean, sweet floor for the fruit to ripen upon.

Sixth. Picking, grading, packing, and marketing the strawberries in such a way as to win the confidence of the consuming public and com-

mand the top price—the price that insures profit and prosperity.

All of the details of plant production the above suggests are faithfully carried out in actual practice on the Kellogg Farms, and everything is done in the right way and at the proper time. This book, then, is not merely a theoretical treatise on strawberry culture, but is written after long practical experience; and its mission is to tell you just how you may make the Kellogg way your way so that you, too, may achieve a noble success in the most delightful and profitable occupation of strawberry production.

And in writing this book it has not been our purpose to make it large as to the number of its pages, but a great book and an invaluable one to our friends because of the knowledge it imparts concerning all that relates to the science of strawberry production. It has been said that this book is worth its weight in gold, but the growers who will study its pages with care and put its teachings into actual practice, will find its worth far greater than that; indeed, it will prove itself a veritable gold mine.

There is no mystery in strawberry production; no wizard of horticulture may wave a magic wand and bring to hand broad fields of ripened deliciousness. It is a simple matter to become a



# STRAWBERRIES *and* HOW TO GROW THEM



R. M. KELLOGG CO.'S NEW UP-TO-DATE OFFICE

THIS illustration shows the new brick office of the Kellogg Company. The building is particularly arranged to accommodate the business of the company, and its main office room is pronounced to be one of the finest in Michigan. The first and second stories only are shown here. The further side rests on a level with the street so that a team may be driven into the mailing department, from which two-horse-loads of "Great Crops of Strawberries and How to Grow Them" are sent to the postoffice daily during the busy season.

successful, money making strawberry grower—when you know how. A knowledge of nature's simple ways and gumption are the chief requisites; and we shall tell you not only how to grow big crops of fancy berries, but how to get big prices for them and build up a reputation for quality that will keep your berries in constant and growing demand. And we purpose telling it in language so plain that any one can take up the work with perfect assurance of winning out.

Strawberry growing is not only a profitable business—it is a delightfully pleasant occupation as well. But viewed from the profit side alone, experience has demonstrated beyond the

shadow of a doubt that more money may be realized from one acre of land when set to well-developed strawberry plants than from any other line of production. And if any strawberry grower is finding his work unprofitable something is wrong with his way of doing things. Either he is trying to do business with what he is pleased to call economy, and using an inferior quality of plants, or he is neglecting to give his plants such intelligent treatment as success demands.

There is a vast difference between economy and penuriousness, and nowhere else may it be more clearly seen than in strawberry production.



OUR MAILING DEPARTMENT GETTING OUT ITS DAILY BUDGET





#### THE RECORD-BREAKING QUEEN OF THE DAIRY—RESULT OF SELECTION AND BREEDING

THIS is a photo-reproduction of Colantha Fourth's Johanna, the wonderful Holstein cow bred and owned by W. J. Gillett of Rosendale, Wis. In the 120 days' test ended April 30, 1907, she gave 10,545 pounds of milk, yielding 461.08 pounds of butter. In our 1906 catalog we illustrated the Champion cow of the world—Loretta D. But the latter's record for 120 days that won the championship was 5,802 pounds of milk, yielding 330 pounds of butter. Four years ago Loretta D. stood as the most perfect specimen in the milch-cow world of selection and breeding. But we are learning better how to do things, and we have the marvelous Johanna as a result. A few years ago it was thought that 5,000 quarts of strawberries to the acre was the limit of possibilities; today Kellogg's Thoroughbreds are yielding more than 10,000 quarts of the biggest and most delicious strawberries the world ever has known; and it is all the result of selection and breeding.

Strong, vigorous plants, set in well prepared soil, and given good care, represent economy of the first order, while weak, stunted plants, set in poorly prepared soil, and given indifferent care, is the order of "saving that wasteth."

Let us look this question squarely in the face: To be sure, one will pay out in cash a little more for the plants of highest quality than he will for the common plants, but what of that when he knows that the better plants will yield twice as big a crop of fruit which will be perfect in every respect? It isn't the lowest-priced plant that is the cheapest, by any means. It is the plant that is strong in its fruit-producing organism, and will yield the largest number of quarts of fancy berries per acre—and these are the only kind to which you can afford to give up your land and your labor. In a word, common plants are costly at any price, even though your neighbor furnish them free for the digging. Keep this thought in mind: the express, freight or postage will be as much on a bill of cheap, unfruitful plants as it will be upon the highest quality plants grown; it will require the same area of land and the same quantity of fertilizer

to enrich the soil; the same amount of labor must be expended in preparing the ground and in cultivating and hoeing the plants; the same amount of mulching will be required to cover them in winter. But the weak and cheap plants will not require one-half the number of quart boxes and crates to hold the fruit—the only saving one effects in using commonly grown plants is in boxes, crates and picking expense. This, you will agree, is not the sort of saving that will please him, for it represents serious loss, perhaps complete failure.

#### The Kind of Plants to Set

AS we are to consider the several factors that enter into successful strawberry production we shall begin with the most important—the kind of plants to set. The Thoroughbred Pedigree plants described in this book are scientifically selected from ideal mother plants of known fruiting vigor. They are grown under the most favorable conditions. The soil is prepared one year in advance by growing one leguminous crop, which is turned under in the fall, when a cover crop of rye is sown, which is covered with



## STRAWBERRIES *and* HOW TO GROW THEM



### J. A. HAGERMAN WINS SUCCESS IN THE KELLOGG WAY

IN a letter dated from his home at Seaton, Ill., July 20 1907, Mr. Hagerman says: "This photograph was taken while the plants were in bloom, and it was as beautiful a sight as one would wish to see. I began raising strawberries some ten years ago, and I made the same mistake that lots of others do: I would go to any old patch and dig my plants, generally getting them for nothing—and they were dear at that. Well, I did not raise many berries, and no good ones at all, but finally I got hold of R. M. Kellogg's 'Great Crops of Strawberries and How to Grow Them'—and I sent for some of his plants and studied that book, and now I am raising as fine berries as I ever saw grow anywhere, and I never fail to send Kellogg's an order for plants each spring."

rich barnyard manure, the whole being plowed under and mixed with the soil the following spring. This treatment fills the soil with humus, making it rich and spongy, and capable of holding large quantities of moisture; it also fills the soil with the richest of plant foods. Thus the plants are kept in a highly vigorous condition, growing from the day they are set until dug without interruption or backset of any kind, and producing a plant with a strong root system, with all its roots starting direct from the crown or body of the plant. The crowns of these plants are perfectly developed and stored full of vitality, which sustains the life and vigor of the plant until they take firm hold upon the soil in which they are to fruit.

#### How to Prepare the Soil

ONE important and advantageous feature of the strawberry business not always appreciated is the fact that the strawberry in any ordinary soil yields large harvests of fruit. As to fertilizer, we prefer stable manure over anything else. If the soil is strong enough to pro-

duce a large crop of corn or potatoes, it will grow a fine crop of strawberries without the application of any fertilizer.

The best time to apply the manure is in winter, just when the soil tiller has ample time at his command in which to do the work. It should be spread evenly over the entire surface, so that it will mulch the ground. Not only does it enrich the ground when thus applied, but it also keeps the soil from puddling, and in the spring it will plow up loose and mellow as a garden. After the plowing is done, go over the field with a harrow or disc until the soil and manure are thoroughly mixed together. It should be pulverized finely to the depth of the plowing.

If your soil is sandy, or loose black soil, it should be rolled firmly, but if it be clay or stiff black soil, roll it only enough to crush the clods. If the harrow follows directly after the breaking plow, before the clods have time to dry out and become hard, the clods will crumble and it will be unnecessary to roll at all. We recommend that this course be followed if you have but one team: plow awhile and then harrow thoroughly the newly plowed ground.





#### KELLOGG'S THOROUGHBREDS IN AN ORCHARD

THIS illustration is a photograph of our Thoroughbreds in the orchard of G. W. Grecian of Riverside, Iowa. Mr. Grecian writes under date of July 23, 1907: "We have just finished our strawberry picking. We were offered \$140.00 by a commercial grower for one patch 100x88 feet, he to do the picking. He said he never had seen such berries."

If for any reason you cannot haul manure during winter, then wait until spring, plow your ground as outlined above, and set the plants. After this is done you may spread fine manure between the rows and the cultivator will mix the manure into the soil. We often have manured our plants in this way, and the results are excellent. In fact, it is an ideal way.

In some localities stable manure cannot be had, and in such cases commercial fertilizers may be used. A fertilizer best adapted to the needs of the strawberry should contain the three principal plant-food ingredients in about the following proportions:

Nitrogen	.....	3 per cent.
Potassium	.....	9 per cent.
Phosphorus	.....	7 per cent.

Almost any of the companies that manufacture fertilizers will prepare you a special brand on this order. A commercial fertilizer should be applied and thoroughly worked into the soil before the plants are set.

#### Marking Out the Rows

**W**HETHER you are a large or small grower, much hoeing and hand work may be eliminated by marking out the field so that the cultivator may go through in both directions.

We hit upon this plan in the spring of 1907 and marked out 100 acres in this way. It saved a great deal of expense in hoeing. We first marked out the rows four feet apart, using for this work a common corn planter. Then we went in the opposite direction with a marker composed of six wheels, which were placed twenty-eight inches apart on a common gas-pipe axle. The shafts were also of gas pipe (see Page 24). By setting plants in each cross-mark we secured perfectly straight rows in each direction, four feet apart one way, twenty-eight inches the other. When cultivating the four-foot space, the cultivator was set about thirty inches wide, going twice through each space; and when going through the narrow way the tool was narrowed to about twenty-four inches, going only once through each space at each cultivation. We cultivated in both directions until July 1, at which time runners had started, and then cultivation was confined entirely to the four-foot space. By cultivating in both directions until July, we kept control of the weeds, and it was easy to care for the plants the balance of the season.

**B**EFORE setting plants it is best to prune the roots back about one-third. Cutting off the ends of the roots causes them to callous and





A. H. FINNEGAN IN HIS THOROUGHbred STRAWBERRY PATCH

THIS is a photograph of Kellogg's Thoroughbreds as they grow among the big pines of Oregon in the field of A. H. Finnegan of Oregon City. Mr. Finnegan is an old-time customer of this company and leads the van in his section. Such a picture shows what may be done by a careful grower when only high-quality plants are used.

they will send out numerous feeders and will make a much stronger root system than could be made if the roots were not pruned. And shortening the roots makes it easier to set the plants. In doing this pruning you simply take a pair of shears or a sharp knife and cut about two inches off the lower end of the roots. A full bunch of twenty-five plants may be pruned at one cutting.

#### Mating Pistillate Varieties

SOME of the very best varieties on our list of strawberry plants are pistillates, and when they are properly mated they become enormously productive of high-quality fruit. When we say properly mated, we not only mean that the pistillate should be set with some bisexual of its own season, but the bisexual must be of a strain of plants that never has been weakened through pollen exhaustion. The Kellogg strain of bisexual plants has been selected with great care along this line, and this great quality in our plants is recognized by practical strawberry growers all the world over.

A vigorous and well developed bisexual plant is certain to produce flowers of the same character, and such flowers insure large anthers, which

in turn furnish an abundance of fertile pollen. In order to get the pistillate to do its very best, it should be set in rows between two bisexuals—one of a little earlier season, and the other of a trifle later season than the pistillate itself.

For instance, the Sample is a medium-late pistillate, and the following would be an ideal way to set them to secure perfect fertilization: First, one row of Climax; second, three rows of Sample; third, one row of Pride of Michigan. This would place Sample between two bisexuals of different seasons. The pollen from the Climax flowers would pollinize the earlier bloom of the Sample, while the pollen of Pride of Michigan would supply pollen for the Sample's later flowers. Not only would this arrangement be of great advantage to the Sample, but Pride of Michigan and Climax would exchange pollen between themselves and this would greatly increase the yield received from these two bisexual varieties, as well as insuring more perfectly formed berries.

You will observe that we have advised three rows of pistillates. This is not a set rule. You may use three rows each of Climax, three of Sample and three of Pride of Michigan; or one row of each of these varieties, just as you





KELLOGG'S HOEING BRIGADE MAKING ITS THIRD ROUND

NO crust, no weeds, no grass or any intruder of any nature is permitted among the growing plants. From the time the plants are set until they are mulched, this gang of hoemen spends its entire time caring for the Thoroughbreds.

prefer, only following the order so that the Sample will come between the two bisexuals. The point we wish to impress upon the strawberry grower is the fact that two rows of our strong pollenizing bisexuals will fertilize three rows of pistillates when set as here described. And please bear in mind also that we have mentioned these three varieties for the purpose of making plain our method of mating pistillate varieties. Any one of the early or medium bisexuals can be used in connection with any one of the later bisexuals to mate Sample. Any of the pistillate varieties listed in this book can be mated in the same way. Only be sure that you place your pistillate variety between bisexuals of a little earlier and a little later date than the pistillate itself.

#### Exchange of Pollen Between Bisexuals

THROUGH a series of tests worked out in experimental plots by the president of the R. M. Kellogg Company, the fact was discovered that one bisexual variety is greatly benefited by setting it near other bisexuals of the same season. This is because the stigmas of the flowers of many bisexuals are not receptive to the pollen supplied by the anthers of their own flowers. In making this experiment a number

of different bisexuals were set in alternate rows. In other plots the same varieties were grown alone, where they had to depend upon the pollen from their own flowers. All of the plots received the same care and treatment.

At fruiting time the difference in yield and perfection of fruit were quite noticeably in favor of the plot wherein the several bisexuals were mated together. In that particular plot there were very few barren blooms, and the berries were as near perfection as we ever have seen them. In the plots where single varieties of bisexuals were set there were many barren flowers, as well as many deformed and otherwise imperfect berries. More than that, the yield of fruit was very largely increased where the bisexual had enjoyed an exchange of pollen.

We often are asked why it is that strawberries always yield more and better fruit in trial plots and small gardens than they do in large fields. It is simply because in trial plots and small gardens there always are a number of different varieties and at blooming time a general exchange of pollen takes place. We therefore advise our customers to see to it that in setting out bisexuals, plants of different varieties be set close enough together to result in an exchange of pollen. We are confident that the results will be a pleasant surprise as well as a source of profit to you.





COMMERCIAL STRAWBERRY FIELD OF C. E. DILTS, THORNVILLE, OHIO

UNDER date of July 6, 1907, Mr. Dilts writes us that although this was a poor season for strawberries he "secured from my two acres of Thoroughbreds more berries than my neighbor did from his four acres of common plants. This looks big, but the Kellogg plants have the ability to stand the strain of adverse climatic conditions."

Recently there have been experiments carried forward in the horticultural department of the Michigan Agricultural College along this very line, and photographs of berries that were produced from mated bisexual flowers grown at the college, also photographed berries produced from flowers that were self-pollenized, are exhibited there, and they indicate a large difference in favor of the exchange of pollen. Such results certainly justify our confidence that the exchanging of pollen is an important feature of the work of strawberry production, and that success is more certain with bisexuals of different varieties set closely together, than where a bisexual variety is set entirely by itself.

#### Setting the Plants

A PROPERLY grown strawberry plant is exceedingly hardy and will grow under almost any kind of treatment, but if care be used when setting the plants it will greatly assist their roots to take hold upon the soil; in fact good plants, carefully set, is the starting point on the highway of success in the strawberry business. It is our purpose to start you right.

The first thing to be considered is the width of the rows, and this depends upon the method

you are to follow in cultivating them. If the work is to be done with a horse, the rows should be at least three and a half feet apart, the plants being placed from twenty-four to thirty inches apart in the rows, assuming that the system you have adopted be the single-hedge, double-hedge or narrow-matted row. But if the plants are to be grown in the wide-matted-row system, then the rows should be four feet apart, as this will give more space for the plants to spread, so that each plant may have room in which to develop into a heavy fruiter. In family gardens, where hand work is to be employed exclusively and where space is scarce, the rows may be as close as twenty-four to thirty inches, and the plants set from fifteen to twenty inches in the row.

We find that a dibble like the one shown on Page 63 is the best tool to employ when setting plants. It makes a smooth, large opening, so that the roots may be well spread, thus allowing every root to come into direct contact with the moist soil and at once begin feeding and building up a vigorous fruit-producing organism. And remember that every convenience of this kind that is employed in the work of strawberry culture tends to lessen labor and increase pleasure and profits. Every grower owes it to himself





KELLOGG'S THOROUGHBREDS AMONG THE ORANGE TREES

A VIEW sent us by George S. Bisbee of Pomona, California. The photograph was taken just five months after the plants were set. A remarkable fact when you stop to consider that these plants were shipped two thousand and five hundred miles. Only plants of great vitality could make such rapid advance under such conditions.

to take advantage of every device of this kind.

#### Removing Blossoms From Spring-set Plants

**W**ILL the Kellogg strain of plants produce berries the same season they are set out? This is a question that often comes to us. We answer "Yes," and lots of them, too, but to allow them to do so would greatly weaken the plants, and the loss in the long run would be much greater than the gain.

Strawberry plants that are set out in the spring should not be permitted to fruit until the following spring, and the way to keep them from fruiting is simply to pinch or cut off the fruit stems. This work should be done before the bloom opens or immediately afterwards. This is not a difficult task, neither does it require much time. One man easily may remove the blossoms from two or three acres of strawberry plants in a single day. Relieving the plants of the bloom in this manner keeps them from being weakened through pollen exhaustion or through seed production. Just as soon as you remove the bloom from young plants you relieve them of the necessity of spending their energies in the direction of fruit production, and so they quickly

start to work building up a massive root system. And with a good root system a big healthy foliage is made, and from the strong foliage and root system combined comes the large and vigorous crowns from which the fruit-bud system is developed which is to give great yields of big red berries. Allowing the young plant to bear fruit before it becomes well established in its new quarters would have the same effect upon the future of the plant as overworking a young colt would have upon the effectiveness of the horse that is to be.

#### Cultivation of Plants

**Y**OU may have your soil filled with the very richest of plant food in perfectly balanced form and the plants may be of the highest quality; but without cultivation the plants will not do their best. Plants cannot use raw or unprepared food any more than can the members of the human family. It is cultivation that incorporates the unprepared or raw materials with the soil, while at the same time this stirring of the soil creates a dust mulch over the surface of the ground which holds the moisture in the soil. It is this moisture that dissolves the plant food and extracts the mineral matter from the soil





W. ELLIS PENNYPACKER IN HIS HALF-ACRE OF THOROUGHBREDS

HERE is what Mr. Pennypacker writes about it: "In regard to your Thoroughbred plants, I like them fine, and never have missed a crop since I began in the business. In the month of June, 1906, we picked from a scant half-acre 3,839 quarts of strawberries, for which I received \$323.82. In one day—June 9—we picked 518 quarts which I sold at wholesale for \$52.08. I certainly am well pleased with the returns received from your Thoroughbreds." Mr. Pennypacker's field is at Burchrunville, Pa.

grains and fertilizers that have been distributed through the soil.

Another important result of proper cultivation of the soil is in the loosening of it up in such a way as to leave small air spaces between the soil grains, the result of which is to furnish air to the bacterial germs so they may well perform their work of transforming the raw materials in the soil into an available form as plant food. The more uniformly these microbe organisms perform their part of the work, the more vigorously will the plants grow. Before describing more definitely the way to cultivate we shall enumerate its several advantages.

1. It prevents the formation of crust on the surface of the soil.

2. It creates and maintains a blanket of dust over the surface of the ground, which retains moisture in the soil and keeps its temperature at a normal degree.

3. It enables bacteria to secure ample quantities of air.

4. It destroys weed seed while in the germinating stage; and this, by the way, is the best time to kill all obnoxious growths.

5. It mixes the fertilizer with the soil, so that the bacterial germs may work up the fer-

tilizer into available forms of plant food.

6. It keeps the strawberry runners from overflowing into the space between the rows.

The best cultivator we ever have used is the Planet Jr., as shown on Page 63. The teeth of this cultivator are chisel shaped and so arranged that every particle of the soil is cut as the cultivator passes over the field, which is a very important feature.

The plants should be cultivated after each rain, as soon as the soil is dry enough to crumble, and should it remain dry the cultivation should be repeated every eight or ten days, thus replacing the old dust mulch with a new dust mulch.

When the plants become large and begin to spread out it is a good plan to have the cultivator teeth that run next to the plants about two inches shorter than the other teeth. When arranged in this way the teeth will go deeply enough to break the crust near the plants without cutting any of the roots of the plant. About twice each month a five-tooth cultivator should be run through the center of the space between the rows. It may go four or five inches deep and will loosen up the soil where the horse has tramped it down while doing the shallow culti-





#### OUR ASPINWALL POWER SPRAYING MACHINES

NO grower who will stop to consider for a moment will take the chances of polluting his fields with destructive insects and fungous spores by buying cheap plants from propagators who never spray. With our perfect spraying outfits every plant is protected from any injury through insects or fungi. When you buy Kellogg's strain of Thoroughbreds you have the positive assurance of receiving pure and absolutely healthy plants. The value of this one feature is beyond all estimate.

vation. The work of cultivating is easy and inexpensive. One man and horse easily may cultivate four acres of strawberry plants a day.

As we have said, cultivation is a prime essential to success. To neglect cultivation is an invitation to failure. The more thoroughly this work is done, the larger the results are sure to be, and it may truly be said that the cultivator is one of the strawberry grower's best friends.

#### Hoeing the Plants

BUT carefully as we may go through the rows with the cultivator, there still is work to be done by the man with the hoe. Every plant should receive its share of attention and the grower should be careful to see that every particle of crust about the plants is broken up, and this should be done two or three times each month. When working near the plants give the hoe a circular motion and cut around the plants close to the crown, but do not go more than one inch deep around the plants, merely cutting the crust. You may hoe deeper in dry weather than when it is wet, because the roots go deeper searching for moisture, while in wet seasons the feeding

roots work near the surface because the soil there is more easily penetrated.

#### Layering the Runners

NO sooner do the plants become well established in the soil than, with that instinct which underlies all life and which keeps this good old world of ours a-going, they set about the work of perpetuating their race and multiplying it throughout the earth. Those of our friends who are just beginning work along the lines of strawberry production will be surprised at the amount of energy shown by each plant in this line of work, and at the number of new plants each mother plant will produce. So ambitious are these mother plants that if left to themselves they soon would be exhausted in reproducing their kind. In another place in this book is discussed the different systems or methods which different growers follow in arranging their fields or patches—single-hedge rows, double-hedge rows, narrow-matted rows, wide-matted rows, and the hill system. This matter should be determined in each case at the time the plants are set. And having determined this point, the manner or form in which





A PATCH OF KELLOGG'S THOROUGHBREDS, WHOSE OWNER'S NAME IS LOST

HERE is a scene showing our Thoroughbreds, but owing to an accident we are unable to tell whose field it is, and we hope the owner will advise us when he sees this picture. The name was carefully written on the back of the photograph, but by mistake was cut off, so that when the engraving reached us from the engraver's there was no way to identify it.

the runners (or new plants) are to be layered in the rows will be determined.

Layering, in its horticultural sense, means to propagate by bending a shoot or runner down under the ground so that it may strike root and become a separate plant. In the case of the strawberry runner when the runner wire has grown about one foot from the mother plant a node is formed. This is an embryo plant, which in a few days will open out leaves. Just as soon as the leaves start, this young plant is ready to be aided to "go it alone," and here is the way to help it along: When hoeing, first break the crust, then lay the runner wire on the loose, moist earth in the position it should occupy in the row, and with the hoe place a little soft soil on the runner just back of the young plant. This will keep it in place until it gets firm hold upon the soil, and in a few days more it will be building up a crown system on its own account, relieving the mother plant from further expenditure of energy in that direction—a fact, by the way, of large importance to the mother plant, which thus will be enabled to devote her full strength to the development of her own fruiting powers.

One of the most delightful experiences the strawberry grower is privileged to enjoy will be

had in doing this work so fundamental to the success of his undertaking.

### Mulching Strawberry Plants

WHY do you always lay so great stress on mulching? is a question often asked us. Perhaps the best answer to that question will be to enumerate some of the important effects and influences of mulching. Here are five of them:

1. Mulching prevents freezing and thawing, which in turn cause expansion and contraction and result in the straining or breaking of the roots of the plants.

2. Mulching holds plants dormant, preventing, at least to a certain extent, extra-early blooming, which lessens the danger of injury from late spring frosts.

3. Mulching insures clean, bright, glossy berries, making it easy to market them at top prices, and fixes your reputation as a grower who supplies his customers with clean fruit. Strawberries that do not have to be "washed" are substantially appreciated by the consumer. The grower who fails to supply clean fruit certainly fails at the critical point.

4. Mulching retains moisture in the soil against the day of hot suns, just when the fruit





BLOSSOM OF THE MALE OR BISEXUAL

BLOSSOM OF THE FEMALE OR PISTILLATE

OBSERVE that the male (bisexual) is larger in every way than the female (pistillate). Note the anthers on the male blossom surrounding the center cone. The white spots in the center are the stigmas. When the anthers burst the pollen settles on the end of the stigmas. The germ of this pollen finds its way down into the ovaries of the pistillate, and seed development at once begins, if the stigmas are receptive. If only a part of the stigmas are receptive the result will be a deformed berry; if none of the stigmas are receptive a blank bloom is the result. On the other hand, if all the stigmas are receptive to the pollen at the time the anthers burst, the berry will be fully developed and perfectly smooth. The female bloom has no anthers and must receive its pollen from some near-by male or bisexual. Hence the necessity of proper mating.

is ripening—the very period in which they most need an ample supply.

5. To these practical advantages is to be added the relief the grower whose plants are well mulched feels from all anxiety concerning their appearance and condition in the spring; for well-mulched plants are certain to be in good shape then, no matter how severe the winter may have been.

The time for applying mulch in northern latitudes is immediately after the first hard freezing in the fall. In the South mulching is done for two purposes only—to retain moisture in the soil and keep the fruit clean, and there the mulching should be applied before the buds open.

And the methods of applying the mulching are altogether different as between the North and the South. In the former we must protect the vines from the cold weather, and so cover them over with the mulching, using about two and a half tons of good straw or its equivalent to the acre. In the South put the mulch along the rows close up to the plants, but do not cover the plants. Anything that will make a clean floor and hold the moisture in the soil will do, and a

favorite mulch in that section is the pine needle, vast quantities of this material being used for that purpose.

Where mulching has been put over the plants, it should be removed in the early spring; rather it should be parted from over the plants and the mulching so removed placed near the plants for the fruit to rest upon during the growing and ripening periods. However, if it is the purpose of the grower to cultivate his berries during the growing season, he should rake the mulching from the center of the space between the rows close to the plants and cultivate the bare space thus made. Experience has proved that cultivating the fruiting bed at this time and in this way is of large advantage.

The materials to use in mulching are many. All straw is excellent, wheat straw being preferred. Marsh hay, swamp grass, sorghum pomace, sown corn—all these and many other things are employed where conditions compel their use. On the Atlantic coast strawberry growers use seaweed, and they find it excellent.

By all means mulch, and mulch well, if you would attain to the highest success in your work as a strawberry grower.





A WAGON LOAD OF KELLOGG'S THOROUGHBREDS

WRITING of date July 29, 1907, L. M. Kerlin of Liverpool, Pa., says: "I send you a photograph showing my outfit loaded up and ready to start to market. I have been very successful in the strawberry business; my whole family likes it, and Oh! such encouragement you get when the people see the berries so large and sweet! It makes you feel as though you were king of kings. I started on a small scale with your plants and under your instructions, so that I am now able to handle a large acreage." What Mr. Kerlin has done others may do—with Thoroughbreds as a starter.

#### Helping Plants Through the Mulching

**D**URING the winter, with its heavy rains and snows, the mulching materials have become soaked with moisture and rest in a mat upon the plants so dense and so heavy as to render it impossible for the plants to grow up through it without the grower's help. In the spring, when vegetation starts growing, this mulching should be separated directly over each row, the work being done most easily with a fork. Simply make an opening through the mulching that lies upon the plants and the plants will come up through this opening. This will leave the mulching close around each plant. When the berries begin to form the weight of the fruit will naturally pull the stems downward until they come in contact with the mulching, which affords a clean carpet for the berries to ripen upon.

Another advantage in leaving the mulching close up to the plants is that the moisture is held where it is most needed, and it also prevents weeds from growing near the plants. When some growers uncover their vines in the spring they rake the mulching off clean, leaving a bare space all around the plants, with not even enough straw for the fruit to ripen on. This is a serious

mistake, as one of the most important objects of mulching is to provide a clean floor for the berries to lie upon during the growing and ripening periods. Be sure that you handle your mulching just right, both when you put it on the rows, and when you remove it from over the plants in the spring.

#### Weeding the Fruiting Bed

**I**F weed seed, wheat, rye or oats are in the mulching material—and this generally is found to be the case where these materials are used as mulch, the seeds will sprout and come up through the mulching, and if allowed to grow will be detrimental to the crop of berries.

The best way we have found to get rid of these obnoxious growths is to pull them up by hand. When the earth is soft following a rain, they are easily pulled up. If the weather is dry we take a sharp hoe and scrape it under the mulching in such a way as to shave the weeds off just below the surface of the soil. This is a light task and once over the field will leave the plants perfectly free from all intruders. If the mulching is several inches deep, few weeds will succeed in getting through it.





#### TWO OF A KIND—AND YET WHAT A DIFFERENCE!

**THIS** hen was bred from a strain of well-known layers at the Maine Experiment Station, and made the world's greatest record of 251 eggs in her first year, although many of its mates attained above the 200-a-year mark. It is easy to make money with a strain of fowls selected and bred for large production; but the selection and breeding must be done.

**THIS** hen was bred at the same place from a strain of fowls deficient in laying power, and it is not surprising to learn that she succeeded in laying only eight eggs in her first year. But her consumption of food was as great and she was given the same care as was given the other. But selection and breeding was in the wrong direction.

**SO** it is with strawberry plants. It requires the same amount of fertilizer, land and labor when weak and poorly developed plants are used as it does with plants of the highest fruiting vigor. The Kellogg strain belongs to the same class as does the hen that beats the world's record.

#### Cultivating the Fruiting Bed

**WEEDS** must never be permitted to dispute for the possession of the strawberry bed. They are apt to press any advantage they are allowed to the point where they become master of the situation and leave the fruit "in the shade" so deeply that it never gets into the sunlight.

Therefore, even fruiting beds may be cultivated. This, indeed, is another way to down the weeds. First draw the mulching close up to the row of plants and then cultivate in the vacant spaces between the rows. By doing this the mulching will be so thick along the rows that weeds and grass cannot come up through it, and the stirring of the soil between the rows will prevent seed from germinating there.

If the grower is careful to see that he does not cultivate too deeply; does not start the work until danger from frost is past; does not cultivate when plants are in bloom, save when the soil is so damp that the dust will not fly—if these points are observed this work will serve two purposes; it will destroy foul growths and conserve

moisture in the soil, and these will insure an increase in crop. If any weeds should grow in the row they would be so few as to make it a simple matter to pull them out by hand; and this easily is done when the soil is soft and yielding, as after a shower.

#### Picking the Strawberries

**JUST** how ripe to allow berries to get before picking them depends entirely upon the market and marketing methods. If the berries are to be shipped some distance it is best to pick them a little under ripe—when the berries are colored on top and beginning to color on the under side. In this condition they will stand shipping for a long distance. If the market is near home the berries should not be picked until fully ripe. In any event the picking never should be done while the vines are wet from dew or rain. Of course, if the season is one of frequent rains the picking cannot be deferred until the vines are dry. In such cases the grower must use his own judgment.





#### MARK HANNAS AND SHREDDED WHEAT BISCUIT

In picking berries a short piece of the stem should be left on each berry. The thumb nail makes an ideal tool with which to cut the stem, pinching the stems between the fore-finger and thumb-nail. If the berry is pulled off the stem it will leave a hole in the berry and the fruit will soon spoil. Even though they are sold direct from the patch as soon as picked, it pays big to leave a small stem on them, because the berries retain their shape better and will make a much more attractive appearance. No matter how fine the berries are they cannot be packed in a tempting way unless they are properly picked.

We repeat the most essential points to be observed at picking time:

1. If possible have the vines and berries dry.
2. Leave short piece of stem on each berry.
3. Have the berries uniform as to ripeness.
4. Pick while unripe if berries are to be shipped, but permit them to become fully ripe when sold near home.

#### Packing the Strawberries

A LITTLE care in packing the berries will do more toward increasing the net profits of the strawberry field than most growers imagine. Have you not often gone into a fancy grocery where all kinds of fruit and other eatables were put out in plain view, and bought something you had no notion of buying when you went into the store, simply because everything was displayed so temptingly that you were compelled to do so? The grocer who thus arranges his tempting food supplies has an object in view.

He knows full well that a clean and nicely arranged store, with all the appetizing things arrayed in full view so that his customers cannot get by them without seeing them, is the thing that makes sales that would not be made were the same articles thrown about in haphazard style. A basket of old "specked" apples never made anybody's mouth water, neither will a box of dirty and poorly packed berries.

Every grower of strawberries owes it to himself to make his particular brand of berries just as tempting as they can be, just so he is honest about it; and that means to make the bottom of the box just as good as the top of the box. In addition to this place the top layer of each quart with the stem ends down and the bright glossy ripe fruit thus presented to the eye will command an instant sale at two or three cents a quart higher than berries of the same quality that are not so nicely arranged. Just try this plan of packing one box of strawberries and then set a box beside it that has not received that sort of attention, and note the difference. Even those who know that the contents of the two boxes are practically of the same quality would prefer the dressed-up box at a higher price.

Let us see what nicely packed berries will do for the grower:

1. It will give him popularity and put him head and shoulders above his competitor.
2. It will make customers hunt him and save him all the trouble of hunting customers.
3. It will unfailingly secure him the very highest prices.
4. It will increase his bank account, making





A TRIO OF DOWNING'S BRIDES

him chock full of enthusiasm and that "go-ahead" feeling.

Yes, it pays to do everything right and be the first fiddle.

#### Marketing the Berries

**BY** following our methods of picking as outlined in this book you will have solved the problem of marketing, because if berries are properly picked and temptingly packed, they are certain to attract attention, and by winning the attention of the public you have won its patronage too.

Picking, packing and grading strawberries is the keynote to successful marketing. No matter whether you sell direct to consumers or through commission men, the first and most essential thing to do is to arrange your berries so nicely that they will outshine all competitors. Next in importance is a crate label, which will serve to create a demand for your own brand of strawberries and help you in building up a reputation.

If you sell your strawberries in your own town you should make arrangements with dealers to handle them before the fruit is ripe. Indeed, the same plan should be followed where you ship to near-by towns. If you sell through commis-

sion merchants an agreement should be entered into under which you are to name the price for your product. Any commission firm easily can get a premium for fancy berries.

If, however, you prefer to sell fruit to families direct, it will be well to run an advertisement in the home paper to let the people know that your wagon is to be around every day, loaded with the choicest of berries. Have one price and stick to it; that is, don't sell on the same day and same trip to one family at ten cents a quart and to the next for nine cents. The one who pays nine cents may not "kick," but the other one will.

In sections where berries are grown on an extensive scale, where there is an association of growers, it will pay to have some person well practised in the art to superintend the picking and packing, going from one grower to another. This plan already is being carried out in some places and it has proved itself to be an important aid in the marketing of strawberries at remunerative prices.

#### Spraying Strawberry Plants

**T**HE importance of keeping your patch free from insect pests and fungous diseases may not be estimated. Both the interests of the indi-





JAMES W. GIFFIN'S THOROUGHBREDS AT CHARLESTOWN, ILL.

THIS illustration is from a photograph sent us July 12, 1907, by Mr. Giffin who says: "I finished picking the 3d day of July, 1907, and had a good crop considering the awful spring we had this year—three heavy frosts after the vines were in bloom. But notwithstanding all these difficulties I sold \$552.00 worth of berries and have won the praise of the leading merchants of our town. They tell me I supplied them the finest berries they ever saw. My fancy berries I sold for \$4.00 per case and had no trouble in selling all I grew at a good price."

vidual and the general public are concerned in this matter. Clean, healthy plants and clean cultivation are the first great preventives, but when effort in these directions has failed, spraying becomes absolutely necessary, and where spraying is intelligently and persistently done it will be effective of good results.

Just when spraying is to be done depends upon the circumstances of the case. A field perfectly free from either of the troubles named of course requires no spraying, although on the Kellogg Farms spraying is kept up throughout the season, even though there be no apparent reason for so doing. The difference, however, lies in the fact that we are propagating plants on scientific lines which are to be shipped all the country over, and we insist that every plant shipped shall be absolutely free from the suspicion of taint. Therefore during our growing season our plants receive as many as eight thorough drenchings with Paris green and Bordeaux mixture combined. We spray to prevent, not to cure, and so if an insect or a fungous spore lights on a Kellogg plant, death to either is instantaneous. The value of such insurance as this affords our customers may hardly be computed.

Paris green is effective in the case of all in-

sects of a leaf-eating nature, except, perhaps, the rose-chafer, and arsenate of lead never fails to dispose of the chafer. Arsenate of lead would be more generally used if it were not so expensive, as it is equally effective in the case of all leaf-eating insects. When used for rose-chafers or hard-shelled potato-beetles, arsenate should be mixed at the rate of five pounds of lead to fifty gallons of water. For other leaf-eating insects, two and a half pounds to fifty gallons is sufficiently strong.

In preparing Paris green we dissolve it with lump lime, which neutralizes the acid and thereby lessens the danger of burning the foliage. Put ten ounces of Paris green over two pounds of lump lime. Pour over these two gallons of hot water. When it starts slaking stir to prevent burning. When cool add enough water to make forty gallons. When, however, Paris green is used in combination with Bordeaux mixture, ten ounces safely may be used. In this case but one pound of lime should be used over the Paris green. Bear in mind that this quantity is for use only in the case of strawberry plants; not for peach or plum trees.

Bordeaux mixture is the most popular of the sprays for fungous diseases, although liver of





ONE OF THE PLANTS FROM THE FIELD THAT YIELDED MORE THAN \$1,500 AN ACRE

FROM H. B. Steward, proprietor of the Highlands Fruit Farm, Myrtle Point, Ore., we have received the above photograph and his statement indicating the remarkable yields he has secured from his plants, the greater portion of which were received from our farm. Mr. Steward says: "I marketed my first berries in 1906 on the 10th day of May; my last October 20 (more than five months of a picking season). The plants yielded crops to exceed \$1,500.00 per acre at 50 cents a gallon. This may sound big, but it is a fact that I picked two and a half gallons from a single plant during the season, and one of my August Luther plants yielded 286 berries, ranging from five to seven inches in circumference."

sulphur is more effective in the case of mildew. Bordeaux mixture is made as follows: Four pounds of unslaked lime in four gallons of hot water; four pounds blue vitriol dissolved in four gallons of water; to which add sufficient water to make one barrel of forty gallons.

Spray to prevent, not to cure. Once disease or insects lay hold upon your fields there is trouble ahead. Keep your eyes open; take frequent trips through the rows of plants keen to discover the presence of trouble. At its first appearance get out the spray pump and proceed to cover the plants with a copper-plate of blue vitriol in the form of Bordeaux mixture, if the difficulty be of a fungous nature. If there are insects, paint them with Paris green. If you see a spotted leaf or one affected by rust or blight, don't wait to look for another, for the trouble will spread while you are thinking it over. If it be in spring, just as growth is starting, spray at once with Bordeaux mixture; follow with a light treatment ten days later, and then, just before the buds burst into bloom, give them a last drenching. But never put poisons on strawberry plants when they are fruiting or in bloom.

If your plant leaves get to curling up and they look as though affected by drought—that means mildew, and you should spray with liver of sulphur, using one pound to forty gallons of water. This may be used after the berries have formed. To be effective it must be used while fresh.

"As ye spray, so shall your harvest be," is the way one writer expresses his estimate of the value of spraying; and he is right wherever the slightest danger of affection exists. But if you use the Kellogg strain of plants it is not probable that spraying will be necessary, because these plants are so thoroughly sprayed in the propagating bed that they are entirely free from any taint of fungus or insects.

#### Preparing for Second Crop

JUST as soon as the last picking of the strawberry berries is made the entire field should be mowed over. Where the field is large a two-horse mowing machine may be used, but in small patches a scythe or sickle will do. As the crown of the plant is well protected by the soil there will be little danger of mowing the vines too closely. This work should be done when





A ROYAL FEAST—STEVENS' LATE CHAMPION

weather conditions are just right—that is, while there is not much danger of a heavy rain before the field is burned over. This is because the plants after mowing should be burned over. One great advantage of the burning is the complete destruction of all insect pests and fungous spores.

In setting on fire go to the side from which the wind is coming and set the entire bed to burning as quickly as it may be done. We often have burned over four or five acres in not to exceed fifteen minutes of time. If the mulching has been put on quite heavily it is best to remove part of the mulching or loosen it up so it will burn readily, as a smoldering fire would tend to destroy the crowns of the plants. The better way to loosen up the mulching in such a case is by driving through the rows with a hay tedder. This will cause the mulching to lie loosely and the fire will consume it without danger to the plants. If the patch be small the loosening may be done with a fork. It is surprising the way plants will revive after this process and go to work sending out new runners.

After the burning is done comes the process of narrowing down the rows. This is best done by taking a common breaking plow or bar shear and throwing a furrow from each side of the row into the center. This will leave a ridge directly between the rows, which may be leveled down

or thrown back to place by the use of a one-horse five-tooth cultivator. After the cultivator has been run through, a reversible harrow with the teeth thrown slightly backwards and drawn across the rows will level it nicely. It also will draw the fine soil over the crowns and bury them completely; a very important thing to do, as after the plants have fruited the old roots become wiry and almost lifeless. By thus covering the crowns a new root system will start, readily developing just above the old roots and beneath the crown of the plants. Should the soil not be thrown over the crowns of the plants, this root system will be small and incapable of developing runners. But when thus covered a plant revives and immediately takes on new life and strength.

As soon as the plants after this treatment come up through the soil sufficiently to distinguish the good plants from the weaker ones, they should be gone through with a hoe, sorting out all the weak plants and leaving nothing but strong healthy ones which are to serve as mother plants. These mother plants should be left about sixteen inches apart and each one of them allowed to make four or eight runners, according to the system you intend to follow. These runners should be layered the same as those which come from a newly set bed.

In cultivating this bed for the second crop





BERRY FIELD OF C. S. BOLT, BANCROFT, MICH.

UNDER date of July 29, 1907, Mr. Bolt writes: "I send you herewith photograph of my berry field. I always use Kellogg plants."

the same plan should be followed as is done in cultivating young plants. Cultivation and hoeing should be continued until early fall. Then keep the runners in check and the weeds and grass under control and your second crop will be assured.

#### Some Things We Do Not Do

**P**LEASE remember that the R. M. Kellogg Company does not sell plants for fall setting. Our shipping season is confined to from six to eight weeks in the spring—from the earliest moment we can get to the plants in March or April, to the latest day the season permits the shipment of plants with safety—depending on the season. After our shipping season is closed we cannot ship to anybody under any circumstance. Another thing we do not do is to deal in potted plants. This in answer to a countless number of inquiries received each season.

#### The Opportunity in Strawberries

**Y**OUNG MAN, are you seeking a vocation in life with the notion in your mind that all the places appear to be already filled? Why do you go about, hat in hand, asking other men for a job, when there opens widely to you such a door to opportunity and success as the strawberry field?

We wish you might see the letters we get from one Kansas high-school boy who is earning the money which is to take him through a university course by growing strawberries for market! It's an inspiration to know of his success and to know that it is being achieved by good hard faithful work—the sort of an experience that builds up a manly man and makes him appreciate the meaning and value of an education and how best to use it in after life.

This boy discovered the opportunity and laid hold upon it. Success has crowned his work. What he has done you can do if you will to do it. And you will find yourself in a position of independence by following this line of work more quickly and certainly than by taking any other course we could suggest.

Near every good market lies fertile land that is unused. If it is for sale at a fair price and one can do so, it would be better to buy; if it may not be purchased, it may be leased for a term of years at a moderate rental. Usually a bright man who has the confidence of his neighbors will be able to get hold of the land on which to develop a strawberry farm. Having done so, a strong, clear-headed man will be able to make a start even though he have to work for others a part of the time while he is getting things under way. It's all in the willing to do, and if one will read up a little on strawberry growing, get first-class plants, set them out in first-class soil and give them first-class treatment, success is as certain as that the sun will rise on the morrow.

A demand awaits every fancy berry you can produce and at a high price. Don't bother to grow "the other kind"—it isn't worth while. Follow the lines suggested here as circumstances require, and you will have a bank account and an independent enterprise of your own almost before you know it.

#### Chickens and Strawberries

**T**HERE are many reasons why the poultryman should combine strawberry growing with his animal industry, for the combination is a perfect one in every way and completes a year-round source of revenue. Take, for in-



## STRAWBERRIES *and* HOW TO GROW THEM



CHICKENS AND STRAWBERRIES ON THE FARM OF GEORGE HAZLETT, DAYTON, IND.

**M**R. HAZLETT writes: "Have had splendid success and realized wonderful results from the plants bought in past years from the Kellogg farms, and I want 2,000 more of them."

stance the single item of chicken droppings. How often are these most valuable products of the poultry farm absolutely lost, whereas if used in the production of strawberries they would represent a considerable income from that source alone.

When chicken droppings are handled in just the right way they make one of the richest of fertilizers for strawberries. The economical way to hold all of the manurial value of the droppings is to sprinkle land plaster or dust under the roosting places. Either of these will preserve the nitrogen, which would escape were it not retained by such an absorbent, as fermentation of the manure is checked by the presence of dust or of land plaster. The droppings mixed with dust or land plaster should be gathered up and put in barrels or boxes in a dry shed until applied to the soil.

The way in which this fertilizer should be applied to strawberries in order to secure best results, is to keep it stored until the plants are set and have started growing. Thoroughly mix the droppings and dust until all lumps are finely crumbled; the mixing may be done with hoes. Then scatter very thinly along each side of the rows of plants and follow up with a cultivator, so as to incorporate it with the top soil. By applying it in this manner you avoid all danger of burning the roots of the plants. Another advantage in having the fertilizer on top of the soil is that the rains will leach the valuable parts down into the soil in about the right proportions to keep the plants in a steady and vigorous growth throughout the entire season.

The berries ripen at a season of the year

when there is little revenue coming from the chickens. While the income is increased there is no interference with the work of the poultry end of the combination and the poultryman's time is employed to such profit as largely to increase his bank account.

Chickens are great lovers of all kinds of insects and worms, and at certain seasons may be trusted to feed among the plants. After the plants get to growing nicely just allow a few old biddies and their little chicks to follow the cultivator; they will prove to be the busiest laborers on the place, and they will do no harm to your plants.

Thus it will be seen that chickens are of great advantage to the strawberry grower, while strawberries are a source of great profit to the poultryman.

Let us say in passing, however, that chickens should not be permitted in the strawberry bed after they are mulched, nor while the runners are taking root.

### Bees and Strawberries

**A**NOTHER valuable line of work and one that dovetails in with strawberry-growing perfectly is the production of honey. In fact, these three things—strawberries, chickens and bees—make the grand trio for the man who seeks an independent business and whose capital is limited and land area small. It is perfectly marvelous what may be done on a few acres of ground when put to such uses as here suggested. Therefore, considered purely from the revenue side, the bee business is one that ought to be most attractive as complementary to the straw-





#### KELLOGG'S THOROUGHBREDS IN VERMONT

WRITING under date of July 27, 1907, C. F. Rutan of North Bennington, Vermont, says: "I enclose a photograph I took of my field containing the 4,000 plants we received from you last April. This photograph was taken the first Sunday in July. The field has been pronounced the best in Bennington county. We have given the plants your method of cultivation throughout. We sold our entire crop from your plants last year for 15c per quart and there were not enough of them to supply the demand."

berry business, while the apiarist will find the strawberry a supplementary producer of cash of the first order.

Then there is another reason why the strawberry grower will find the bee a helpful business associate. Everybody knows how important it is that all forms of plant life be perfectly pollinated if it is to bear to its full its particular fruit. The bee is of the greatest aid in this direction. As he gathers the nectar of the strawberry blossom he loads himself down with the fertilizing pollen, and as he moves from flower to flower he carries this essential element on wings and legs to be absorbed by the pistils of the neighboring strawberry plants. It is matter of practical experience that in sections where the bee is numerous, there are grown the most perfectly formed and matured fruit.

#### Potatoes and Strawberries

EVERY potato grower should raise strawberries too, and every strawberry producer should grow potatoes. These two crops make a splendid complementary combination. No other crop puts the soil in such fine condition for strawberries as does the potato crop. The tubers leave the ground fine and mellow, and much of the acid in the soil is taken up by them, leav-

ing it in a neutral state, neither too sour nor too sweet. This is just the kind of soil that strawberries thrive in.

Another reason why the strawberry grower should grow potatoes is that tubers are of themselves a very profitable crop. By planting them early the potatoes may be put on the early market at high prices and they will yield a very large profit.

Our plan is to grow two crops of strawberries and after the second crop is picked plow the vines and mulch under and sow to cow peas at the rate of six pecks to the acre. In the fall turn the pea vines, peas and all under and after working up the soil into fine condition sow the field to rye at the rate of five pecks to the acre. Cover the growing rye with barnyard manure in the winter if the soil is poor and needs it, and in the spring plow rye and manure under and plant to potatoes. After the potatoes are dug harrow the ground once or twice and sow to rye again, which will make an ideal fall pasture. Should you be so situated that you do not wish to turn stock upon the rye, then defer sowing the rye until the latter part of September or early October. The following spring turn this rye crop under, cultivate the soil until it is like a flower garden, and it will be in ideal condition for strawberries, and with strong, well-developed plants 6,000 quarts or more per acre of fancy berries should be grown upon it.

#### The Family Strawberry Patch

WE have been talking about strawberries for the family for a good many years. It has given us no little pleasure to know that we have encouraged hundreds of our good friends to engage in the work of establishing a family patch and to be told that great success and satisfaction have followed. It is becoming true in many sections where the influence of previous editions of this book has permeated that about every



MARKING OUT ROWS ON THE KELLOGG FARM





#### CLIMAX MAKES DELICIOUS STRAWBERRY SHORTCAKE

family garden contains as the central feature of that garden a fine, thrifty strawberry patch, yielding almost without cost an abundance of the most delicious of the earth's products.

But we are not satisfied yet, and never shall we be until all the people enjoy the blessings and privileges of a strawberry patch. Of course, if you live in an apartment house or a flat in some big city, the case appears hopeless—unless you have the courage to get down on the earth again. But no man who has a rood of good ground but should have his own strawberry patch.

It is just as easy to grow your own strawberries as it is to grow your own vegetables. Just try it for once and enjoy a real strawberry, ripe, rich, luscious, right fresh from your own vines, cultivated by your own hands. 'Twill be an event in your life, for money can't buy the kind you grow on your own vines. The very name "home-grown strawberries" makes everybody hungry, and why anybody having a garden should be without a goodly supply of this richest of all fruits is more than we can tell.

Families that grow their own berries have them in season three times a day and between meals, and in winter and through the long days of early spring, have them canned, jammed and preserved in myriad delicious ways, while those

who declare it is too much trouble or too great a cost to grow them, have two or three little stingy messes a year.

Now what is it going to be with you—just enough to say you have tasted strawberries, or all you can eat of the very choicest the whole year? Did we understand you to say that it was going to be all the big, rich juicy fellows you could hold from this time on? Well, thank you for the decision. Please send your order in early for the plants so we can reserve them for you and they can be shipped at the best time to set them out in your locality.

No doubt there are some people who would like to have a family patch of strawberries but are in doubt as to the varieties that would best suit their particular situation as to soil, climate, etc. If you will simply send to us an estimate of the amount of money you wish to expend in plants, we shall be glad to make you a selection that will exactly fill your requirements.

#### Testing Out Varieties For Yourself

ONE of the most interesting experiences alike to professional and amateur strawberry growers, is in conducting experiments with various varieties of plants. Not only is this a



pleasurable work; it is the foundation of large success. The soil conditions and weather conditions under which strawberries grow differ very greatly. Two neighbors side by side, might almost absolutely duplicate each other in these respects. But the distance of a few miles even might be sufficient to create distinctly different conditions.

Under such circumstances it is of high importance that each grower know from actual trial what varieties will best serve in his particular case. And there is no reason why he should not



R. J. SCOTT'S PATCH OF THOROBREDS KINSMAN, OHIO

test, in the course of time, every variety on the nurseryman's list. He will be sure to get more than enough berries to pay for the investment made in plants and the labor expended upon them. The "fun" of growing them is of itself an ample recompense, while the satisfaction of knowing from his own experimentation just what he can do with particular varieties, and the delight of beating everybody in the neighborhood just because he has been keen enough to discover and utilize the very varieties that excel under the peculiar conditions under which he works—why, nobody ought ever to be content with growing the same varieties year after year when all these pleasant and profitable possibilities present themselves as reasons for his testing out for himself what other varieties will do.

We advise our friends everywhere, no matter how well pleased they may be with the varieties they are growing, to make it a rule to test out several varieties each year, even though the number of plants of each new variety tested do not exceed twenty-five. It will give every one fol-

lowing this advice new interest in his work, and, we repeat, may prove to be the foundation of extraordinary success where plants, soil, weather and cultural methods all combine to produce bumper crops of big red berries.

### Of Interest to Canadian Customers

OUR customers in Canada who for years have suffered inconvenience, and sometimes loss, through the fact that certain Canadian customs officials and those in charge of fumigating stations have wrongly interpreted the Dominion law respecting the importation into Canada of nursery stock, by including strawberry plants as falling under the operations of the so-called San Jose Scale Act, will be pleased to know that through efforts instituted by the R. M. Kellogg Co. there will no longer be any trouble about shipping plants from the United States into the Dominion, nor will plants be held subject to inspection or fumigation.

For years it has been held that strawberry plants, as well as fruit trees, cannot be imported into the Dominion after May 15, which is the day that the fumigation stations close. This interpretation of the law, is held by Hon. James Fletcher, Entomologist and Botanist of the Dominion to be erroneous, as strawberry plants are exempted from its provisions because they are not subject to infestation by the San Jose Scale.

Professor Fletcher, immediately his attention was called to the matter, took up the work of correcting the mistaken judgment, and we believe that through his prompt and intelligent efforts there will be no further difficulty experienced by our friends over the line and that they will be able to get their plants at the season desired and without delay.

### Women as Strawberry Specialists

DO you know that there are many women who today are making an independent living for themselves, supporting their families in comfort and educating their children by growing strawberries for market? It is one of the most interesting and promising signs of the time that this is true, and the fact contains a world of suggestion for other women who are compelled to self-support.

Strawberry growing is refined work, it is healthful, inspiring and profitable. It takes the grower into the outer air and makes contact with the earth and with all nature a delight. There is no out-door work in the cold winter weather for the strawberry specialist. The plants are hibernating under mulch and snow. "But in the glorious days of spring and summer and autumn





#### A QUART BOX OF HAVERLANDS

The way to pack berries to make them attractive and command top prices

the strawberry patch draws the grower into the open to enjoy the sunshine and drink great draughts of health and refreshment from the inspiring air. It is by its very nature the occupation par excellence for women whose lines of life are so laid that they may adopt it for their vocation. Letters received from women who are strawberry growers indicate the greatest degree of enthusiasm, and we must say that their success is proportioned to their enthusiasm. The number is already great; it should be vastly greater.

Strawberries form the basis for many a farmer's wife's bank account, and they make their own spending money as well as the shortcakes that so delight the head of the family. Every energetic and high-spirited woman enjoys the freedom which such an experience gives them. To earn her own money that she may be free to spend it as she will adds to the joy of life something that few men can appreciate.

Some of these women write us that from a little patch of three or four hundred plants their income reaches from forty to fifty dollars, and that caring for the plants and the selling of the fruit are among the pleasantest experiences of

their lives. And one of them adds: "It's lots easier work to get money out of my strawberry patch than it is out of my husband!"

Many women write us that they were inspired to take up the work by reading of "Great Crops of Strawberries." We are glad to know it, and hope to encourage others, and if any woman wishes to engage in this work and would like to know just how to make a start in the direction of success, we shall take pleasure in assisting them. Just let us know of your plans, and we shall be pleased not only to make a selection of plants to suit your requirements, but also shall be glad to answer all calls for help in other ways.

For the woman who must earn her own way there is no other occupation that offers greater opportunities for pleasure and profit than the production of strawberries.

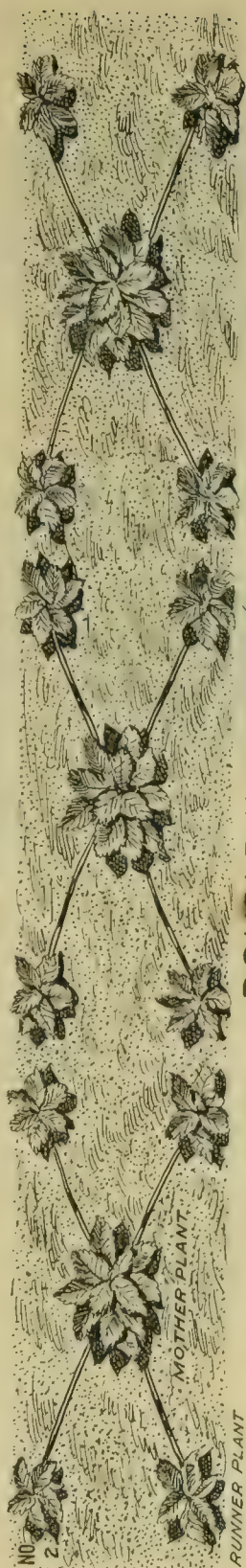
#### Increasing the Value of a Farm

SOME men will buy a farm and in a few years the property will be worth less than when they bought it, simply because they never set out a fruit-tree or bush or plant. Another man will buy an old run-down farm and will at once begin to straighten up fences, will set out a





SINGLE HEDGE ROW



DOUBLE HEDGE ROW



NARROW MATTED ROW

As the single-hedge, double-hedge and narrow-matted rows are the three most popular methods under which strawberries are grown, we illustrate them herewith. Whichever system you adopt you should adhere to, and after the particular form has been completed, cut off all runners that appear thereafter. If you prefer the hill system, then all of the runners should be kept off.





A DISH OF GLEN MARYS—FIT FOR A KING

nicely planned orchard; there will be a nicely arranged plot of bush fruits, and near by a generous patch of strawberry plants. The neighbors begin to notice the plants; the farm looks prosperous and soon buyers are asking for prices upon this property and prospective buyers want it because it is inviting and pleasant; of home-like and restful appearance. The home seeker has noted the prospect of delicious home-grown fruits of all kinds and realizes that not only will this give him great pleasure and add to the comforts of life, but also will save him the expenditure of many a dollar while furnishing his family with the very fat of the land.

Prospective purchasers of farm homes have keen eyes. They see things as they are, and the more attractive you make the farm, the higher price will they bid to get it.

Some years ago F. E. Beatty, president of the R. M. Kellogg Company, bought an old run down farm in Indiana. It was covered with hazel-brush, time and wind had toppled over the rotting fences and the income from it scarcely paid the taxes. This farm was bought for \$3,550.00. At once the fences were straightened up, underbrush was cut, the land tilled where needed, and two acres set with all kinds of tree and bush fruits, with one acre of straw-

berry plants set between the rows of fruit trees. It was surprising how soon the money began coming in from this investment. Of course, the strawberry patch was the first to give returns; and this is always the case. Your strawberries will give you larger and quicker returns on the investment than will any other crop that may be grown. The income from the farm paid for all these improvements and all other expenditures, as well as interest on the money invested, and in two years was offered for sale and taken a few days later at \$7,025.00, netting Mr. Beatty almost \$3,500.00.

But this was not all—the buyer made a good thing too. The year of his purchase he sold enough strawberries from the single acre to pay all the expenses of the farm, and he is still improving the property and today it is worth more than \$10,000.00.

Yes, it certainly pays every farmer to set a good big patch of strawberries. It pays if you want to sell, and it pays if you want to keep. Where is there a man, woman or child, who does not like strawberries? If you know of any such person, please send us his photograph, as we would like to see what he looks like. Many a farmer is paying his help with strawberry money, besides supplying the members of his





\$1,276 00 AN ACRE IN TWO YEARS

THE gentleman whom you see in the above engraving is U. G. Muck of Dorrance, Kan. He writes us that his Kellogg plants yielded at the rate of \$620.80 an acre in 1905 and at the rate of \$656.00 an acre in 1906, besides supplying his family with an abundance of delicious fruit. It is easy to get such results when Thoroughbreds are used and given proper care.

family with this delicious fruit the year around.

#### Appreciative Words From Visitors

NOTHING is pleasanter to the managers of the Kellogg Farms than to have visitors come to see the place where the Thoroughbreds are grown, and we count among our best friends many of those who, coming from near and far, have observed our methods for themselves and thus know to their own satisfaction that the most perfect system of plant production is followed from the beginning to the end. We take pleasure, therefore, in reproducing the following letter from an Ohio strawberry grower who visited the farms, accompanied by his wife, and spent a day in studying the situation from all points of view:

"Scott's Crossing, Ohio, July 14, 1907.  
R. M. Kellogg Co.,  
Three Rivers, Mich.

Gentlemen:—We arrived at home Tuesday evening, after a very enjoyable trip through

southern Michigan; and most of all we enjoyed the visit to the Kellogg farm.

"I have for a long time been very enthusiastic over the growing of strawberries, but because of other work could not give it the attention it should have received. But after visiting your farm and seeing how beautiful a well-cared for field of plants look, I am more enthused than ever.

"I certainly never before had seen a farm on which the rows were so straight, the plants so luxuriant, or on which the system followed was more perfect. And after being shown through the fine office and large packing house, we found that the system at that end was as perfect as it was in the fields.

"As Mr. Kellogg said a few years ago, 'This is an age of specialists.' And your farm surely is a shining example of what may be accomplished by a strawberry specialist. I always have had more faith in the experiments made at your farms that I have had in those of the experiment stations, as you confine your experiments exclusively to strawberries, and your success depends on the success your customers have with your plants; and you do not depend on appropriations to carry on the work.

"In closing we wish to thank you for the kind and courteous treatment shown us while there. The visit was not only a rest and change from the routine of farm work, but instructive as well.

"Yours respectfully,  
"Sidney W. Peltier."

And from an instructor in horticulture in the Iowa Agriculture College comes the following:

"I wish to again express my appreciation of the courteous treatment received while visiting your strawberry fields and your city. You opened my eyes to some new things in strawberry culture.

"Yours sincerely,  
"V. R. Gardner."

Those who are interested in visiting the Kellogg farm as a study in important industrial enterprises are many. The following letter is from a mechanical engineer:

"Beloit, Wis., July 15, 1907.  
R. M. Kellogg Co.,  
Three Rivers, Mich.

Gentlemen:—I was pleased to have your president, Mr. F. E. Beatty, go with me over your splendid strawberry farm on the morning of the 13th inst. The long straight rows, the uniform and healthy growth of the plants and



the freedom from weeds tell of the constant attention that is given. Nearly one hundred acres in one unbroken field of strawberry plants in fine condition is a rare sight.

"Thanking you for attentions shown me, I am,

"Yours very truly,

"F. G. Hobart."

## The Sexual Side of Plants

THE fact that sex exists in plants is as important a degree as it does in animals and that the consideration of this fact in the production of fruit is as essential to the success of the plant breeder as it is in the case of the breeder of animals, is something that has been understood for a comparatively short time only. As R. M. Kellogg so frequently reiterated, all plants are male and female and have perfect sexual organs, with all the counterparts found in animals and fecundation takes place between them substantially in the same way.

The seeds are the eggs of the plant and contain the two merged life germs kept in dormant state just as the germ in a bird's egg remains dormant until warmed by incubation. The seed is put in the ground where moisture and sunshine stimulate it into activity. These both develop and bring out the new beings after their kind.

The fruit flesh which we seek to develop grows only as a substance for the seeds to mature in. The gland system which builds the fruit flesh cannot perform its work unless the seed-forming glands prepare the way for the work of the seed-building organism. We know this because whenever fertilization fails no fruit flesh develops. If you should set an acre all of pistillate varieties they would bloom full and you would think a great crop was in sight, but you would soon see the flowers drop off and no berries would develop. The banana, pineapple, navel orange and some other fruits have no vital seeds, and they are regarded as freaks. They have rudimentary seeds which stimulate into activity the fruit-flesh glands, and we call especial attention to the fact that these seedless fruits never suffer from over bearing, but if sustained by manuring and tillage will bear just as good crops the year following; the amount of fruit depending merely on the capacity of the trees.

The especial and important point for you to note is that the development of fruit not only depends on conception, but upon the potency or vigor of the consolidated life germ, for wherever the vitality of these two life germs (father and mother plant) is low, the berries will be numer-

ous but always small and deficient in quality.

We know the passion for breeding possessed by animals and the fact that all live-stock breeders limit them so that they will not become seminally exhausted; for in this case the offspring would be very inferior in all respects. This seminal exhaustion takes place in plants in identically the same way. Take a vigorous and heavy fruiting raspberry field. Omit the annual pruning for one year and see what a splendid crop you will get. Now prune it and manure it and next year cultivate it as much as you please and see what light crops of berries you will get for several years to follow. If you prune closely, of course it will gradually recover, but for want of restriction this one year you would lose heavily on succeeding crops.

You notice in the orchard when it blooms so full, when every twig is loaded with blossoms, that the fruit is always inferior and heavy crops will not occur again for several years, which may be attributed to pollen exhaustion; but if you properly restrict it by pruning or cutting off surplus buds, so it will not become seminally weak, it will bear good crops of fine fruit every year. Every grower of grapes knows that he must cut off fully five-sixths of his wood and buds every season to get high-grade fruit, and this always is done in the winter or early spring before excessive pollen secretion takes place. "Bearing itself to death," is a common expression among fruit growers, but few persons understand the waste of body of both plants and animals arising out of excessive breeding. All our physicians understand why we have so many deformed persons, mentally and physically, and why we have to maintain so many prisons for the vicious and asylums for mentally weak persons; and the veterinary can explain the source of the miserable scrubs which infest our barnyards. The whole is explained in two words: viz., excessive breeding.

The strawberry plant left to itself throws its whole energies into this sexual function of seed production and consequent fruit, and gradually its seed organs waste away until its fruit is small and inferior, and then we say it has run out.

It is only within the last few years that strawberry growing has been made profitable. At first the grower fruited his beds several years until they needed renovation and manuring and then he fitted new land, went to the old beds for plants, and after repeating this once or twice he got little fruit and gave up the business in disgust.

The boom in strawberry growing came only



## STRAWBERRIES *and* HOW TO GROW THEM

when it was at last learned that better results would follow by taking plants from yearling beds which had borne no fruit and remove all blossoms the first year. This was a big improvement, and seedlings of quality did hold out longer because the exhaustive and devitalizing process of pollen secretions was avoided, but for the want of physical exercise in the breeding functions they gradually grew weak and unfruitful.

This was greatly hastened by the fact that fruit growers persisted in taking the immature tip plants or those which ran out in the alley between the rows. These plants form so late in the fall they have no time to complete the development of their fruit organs, and as the blossom buds were not removed until after the mischief of excessive pollination had occurred, there soon came to be the greatest difference in fruiting ability and the running-out process went on very fast.

During all these years there has been a clamor for new and more productive seedlings; fabulous prices were paid for them and for a few seasons they shone like a meteor in the horticultural heavens; but they soon grew dim because of the wasting away of their fruit organs and, like their predecessors, in their weakened condition fell an easy victim to insect, fungi and all the ills plant life is heir to, and so were discarded.

If there were no changes in the fruit organs of plants arising out of excessive pollination and seed formation you could continually renew from the old bed by taking new runners indefinitely; but in all such experiments it has been shown that the strength of the plant would go to runners and foliage and not to fruit, showing conclusively that potency of pollen and pistil fluids are the prime factors in growing large berries of quality.

### Watering Strawberry Plants

**W**HEN the hot days of summer come, accompanied by drought, strawberry growers frequently hasten to water their plants and often kill them by the way in which they do it. If the surface is kept loose, plants may not grow so fast during the last part of a month's drought, but they will not die. The moisture is in the subsoil and if the surface is loose it cannot get away. Now pour water on so as to saturate three or four inches and you have packed the surface so capillary passages are established with the subsoil water and the whole comes up very fast and dries off so that at the end of about thirty hours it will be dry as a bone below the

roots and, of course, the plant must die; for no plant can live if the ground does not contain two per cent of water. The important thing to do, then, is to keep the surface of the soil constantly stirred, so that the "dust mulch" thus created will break up the capillary ducts and thus leave the moisture in the soil and about the roots of the plants.

But if the drought be very severe and the necessary amount of moisture be not present in the soil, it becomes imperative that water be given them. The proper method of irrigation is to make a trench in the center of the space between the rows of plants and run the water into this trench, from which it will percolate to the roots of the plants. And when doing this see that the quantity of water is ample. If after irrigating the plants generously in this way the surface of the soil is broken by stirring, the plants will need no more water for a week.

"Water the plants with hoe or rake," as one distinguished authority suggests, and use water only when absolutely necessary. And never sprinkle strawberries with water from city water works when the sun shines. It will scald the foliage or cause it to rust. If you must sprinkle, put on heavy at night, wet it down to the bottom of the roots and then wait a week or so. Never sprinkle when in bloom. The large drops pelt the pistils and interfere seriously with pollination.

### Pioneer Work in Horticulture

**W**HEN we began our work the division of Vegetable Physiology and Pathology of the Agricultural Department at Washington was a small, crude affair. The Bureau of Plant Breeding had not been established. Today it is the leading feature of the Agricultural Department and the Bureau of Plant Breeding is the most prominent feature of the division. It employs a respectable army of the world's best experts.

Then there was not an Agricultural College in the country having special classes in plant breeding. Today every college makes scientific development of plants a dominant feature.

Then there was not a society of plant breeders led by scientific men in the world. Today many of the states have organizations and are working astounding revolutions.

Then meetings of every horticultural society spent their time harping on new varieties and which of the old (and often better) varieties they should discard. Today they are looking for means to improve and make the old sorts more efficient. A remarkable advance, surely!





A CLUSTER OF CARDINALS

THIS is a cluster of Cardinals of the Kellogg Thoroughbred strain, without doubt one of the greatest pistillate varieties of a late season ever originated. It is a beautiful berry, but does not depend alone for popularity upon its beauty. It is a noble yielder of delicious fruit, a money maker of the first rank, and will give any grower a great reputation. Just put the Cardinal alongside Stevens' Late Champion or Pride of Michigan, as either of these varieties will mate it perfectly, and you will be the strawberry king in your section, so far as late berries are concerned. Remember, we have taken them through a course of two years of selection, and the Kellogg strain of Cardinals is pure and without variation, free from the larvæ of any insect and from fungi. Don't hold back because the price of the plants appears a little high, as the Kellogg strain of Cardinals is a profitable investment at any price. We paid \$50.00 a thousand for our stock. And be sure and order early, as there will be a great scramble for this variety.





Excelsior, B. (Male)

**EXTRA EARLY.** Bisexual. Rich dark red berry medium sized almost round, with small dark seeds, which give them such a bright shiny appearance that they fairly glisten in the box; the green calyx curls back a little and affords a charming contrast. The meat is rich red, just a trifle lighter than the outer surface and is of solid meaty texture, with a rather tart and extraordinarily rich flavor. It makes a splendid canning berry because it retains its shape better than do most varieties after being cooked. As a shipper it is unexcelled; form and color are retained for days after being picked. This combination of excellent qualities makes Excelsior a very profitable berry for market purposes. The fruit runs even, making very little sorting necessary. This is the twelfth year Excelsior has been under our system of breeding.



Climax, B. (Male)

**EXTRA EARLY.** Bisexual. Berries are big and dark red, with glossy surface, conical in shape, and they are produced in great quantities by this very prolific variety. The seeds are bright yellow except on the darker side, where they are a trifle lighter than the berry; the dark red extends to the berry's very center; flesh is firm, rich and juicy. It is an ideal berry for all purposes and is especially attractive on the table. The commercial grower likes them because they combine beauty and prolificness, the essential qualities of a standard shipper, and its fine appearance makes it very attractive in the family garden. The calyx is small for such a large berry; the plant is tall and erect. Climax is famous for keeping in good condition on the vines for several days after ripening. This is the fourth year of selection in our breeding bed and Climax is winning hosts of new friends every year.

#### Nearly 7000 Quarts From 5000 Plants

**T**HIS result was achieved by R. M. Davidson of Spring Valley, Minn., who writes us: "I set out 5,000 plants and the first crop I got between six and seven thousand quarts of berries. This would not have been done if I had sat down and let the plants take care of themselves, but I went according to your instructions in caring for plants and then in picking them and getting them ready for market. Am getting the third crop from this patch this season.

#### Kellogg's Plants Grow Bumper Crops

**F**ROM G. H. Ashworth of Humboldt, Ill., comes the following under date of June 2, 1907: "The plants I ordered this spring were received in first-class shape and they are growing nicely. I must say the plants were fine ones. The Senator Dunlaps you sent me in

1906 are away ahead of my expectations; the berries hang out under the foliage all around the plants and they are bumpers all right. I have one plant that has 126 berries formed and some of them are beginning to change their color. Other plants have respectively 92, 86, 63 and 48 berries each, and there is not a plant in the patch but what has a good setting of nice berries."

#### Thoroughbreds Yield \$1,000 an Acre

**T**HAT is the record of Columbus Knight of Falmouth, Me., who writes us as follows: "I raised one hundred thirty-two quart crates of strawberries in 1906 from less than one-third of an acre. The soil is clay and the plants were Kellogg's Thoroughbred Bubach, Brandywine and Haverland, mostly Bubach, which I think is the best strawberry ever raised. I got \$300.00 from my bed. An acre would have produced about \$1,000.00 worth of berries."





Michel's Early, B. (Male)

**EXTRA EARLY.** Bisexual. One of the oldest varieties in cultivation and of universal popularity. It grows medium-sized crimson berries, evenly colored, with some variation in form; some are nearly top-shaped while others are round, but this difference only adds to their beauty when attractively packed in boxes. The seeds are light brown with the exception of those on the tip end, the latter being of bright yellow. Michel's Early is a splendid shipper and has a rich mild flavor, with solid meat of deep pink. The calyx is medium in size and stands out straight; foliage is tall of light green with rather long leaves. The variety is famous as a runner maker, which prevents the plants from growing large in the propagating bed, but they develop a powerful crown and grow lots of berries. It is a strong pollinizer also. This is our seventeenth year of selection and restriction of this variety.



August Luther, B. (Male)

**EXTRA EARLY.** Bisexual. Medium-large, bright-colored berry, very round and full at the calyx and tapering to an obtuse point, with prominent seeds of rich yellow, shining on the bright-red surface like flecks of gold. The meat is wine-color, growing lighter toward the center, and is very fine grained and of mild, delicate flavor. The ample calyx curls back toward the stem and is attached to the berry by a small neck which makes easy and quick work when preparing them for the table. Its productiveness and high quality combined makes August Luther very popular, both as a market and family berry, as it adds to its other virtues that of being a splendid shipper. This is the ninth year August Luther has been in our breeding beds and with special care in making selection from the most promising mother plants, age only adds to its value.

#### Plants Thrive Notwithstanding the Cold

**MANLEY MARK** of New Hamburg, Ontario, under date June 28, 1907, writes us as follows: "All of the plants you shipped me about May 1 are growing and I think this was the coldest and most backward spring known in fifty years. Never expected they would grow, for I never had plants do so well before that were shipped so long a distance."

#### 1344 Quarts from a Quarter of an Acre

**WRITING** from Angola, Ind., Wesley Showalter says: "In the spring of 1905 I set out a patch 100 x 105 feet, and in 1906 began picking the 1st of June and the last picking was the 13th of July. Altogether we picked 1,344 quarts of as fine berries as I ever saw, and the little patch netted me over \$100.00, say nothing of the large quantities consumed by my family."

#### Kellogg's Way of Packing Plants

**UNDER** date St. John's, Newfoundland, June 13, 1907, C. R. Steer of that city writes: "The plants you sent me arrived in splendid condition. I take this opportunity to thank you for the excellent way in which they were packed and also for the condition of the plants." What this means will be better appreciated when it is understood that plants for St. John's must be expressed to New York, where they are taken on board ship and carried the rest of the journey by sea.

#### Pioneer says they were Perfectly Packed

**I RECEIVED** my plants from you last season in the very best of shape," writes Ione L. Phelps of Monroe, Wis. "I never had a little order so nicely packed, altho I have been sending for plants often for about forty years."





Texas, B. (Male)

**EXTRA EARLY.** Bisexual. Produces immense crops of large, glossy, crimson berries with a dark-red cheek. Their waxy surface gives them an unusually attractive appearance. Seeds are of bright yellow, crimson on one side and running to dark brown on the other. These unusual colors, combined with the bright-green calyx partly drooping over the berry, makes a display so unusual as to command instant and favorable attention. The Texas is rich and juicy; it is very firm and withstands shipping for long distances; and it is much thought of for canning purposes. The Texas appears to thrive everywhere, finding itself at home in all soils and in all climates. We have had this variety in our breeding bed for six years and recommend it most heartily both as a market and table berry. Our only difficulty has been in supplying the demand for this variety. This year we are confident that our big acreage will about fill the requirements of our customers.



Lovett, B. (Male)

**EARLY.** Bisexual. Berry rather large, of deep crimson color. Usually conical in shape with long points, there are always a few broad wedge-shaped specimens which add very much to appearances when the two forms are nicely arranged in a box. The seeds are bright yellow, extending well out from the surface and aid in producing a pleasing effect. The flesh is a rich dark red and very juicy, with just enough tartness to make it an excellent canner. The calyx is very small, part of which lies flat on the berry, the rest curling back towards the stem. The Lovett stands shipping well and holds its bright color as long as any berry we ever have known. These many good qualities, coupled with its extraordinary productiveness, make it one of the most profitable of the standard varieties. This is the sixteenth year we have bred this variety under our methods of selection.

#### Do You Know?

That the demand for the Kellogg strain of Thoroughbred Pedigree strawberry plants has become so great that the annual sales now are in excess of twenty million plants?

That these plants when set out in the fruiting bed will produce twenty-five million quarts of strawberries, worth at least \$2,500,000.00?

That there will be a greater demand for the plants of the 1908 crop than we ever have had before?

We mention this so that you will be sure to get your order in early.

#### More Than \$500 An Acre

**I** WANT to tell you of my success with your strawberry plants," writes J. D. Alexander of Fremont, Ohio, under date of July 21, 1907. "In the spring of 1906 I purchased 2,000 plants from you and set them

out. The dry weather coming on soon after left but about one-twelfth of an acre. The backward spring delayed their fruiting, but in due time the big red fellows showed in abundance on the vines. Then the good times began. To make a long story short, we picked 367 quarts or over \$42.00 worth of berries. This is my first experience with strawberry culture, but already I have the name here of raising the best berries on the market."

#### Six Dollars a Crate for Kellogg Berries

**T**EXAS is a great strawberry state, but it is Kellogg's Thoroughbred Pedigree stock, set out in the spring in Texas that gets the top prices. Robert A. Smith, writing from Magnolia, Texas, under date of February 3, 1907, says: "The plants I received from you in the spring of 1906 are doing nicely. I am selling berries from them at \$6.00 per crate."





Tennessee Prolific, B. (Male)

**EARLY.** Bisexual. Berries are medium large, bright crimson in color and rather long and corrugated in form; the seeds color up red as the berries ripen and are quite prominent; flesh is fine-grained with plenty of juice and pink in color, and this variety is popular as a canner, while its close grained surface makes it a splendid shipper. It has a large calyx which projects over the berry as if trying to shade it. As its name implies, this variety is extremely prolific and enjoys widespread popularity. It also produces large numbers of runners and the plants do not grow large in a propagating bed, but when restricted in the fruiting bed they stool up to mammoth size. This makes the twentieth year we have had Tennessee Prolific under our method of selection, a fact which of itself testifies to its high quality.



Splendid, B. (Male)

**EARLY TO LATE.** Bisexual. Its name is very suggestive of its character and it is in very truth "splendid" in every particular. The berry is large, nearly round, of a bright-red color and is exceedingly popular on all markets where it has been sold. Its seeds are so nearly the same color as the berry that they are scarcely visible, and the attractiveness of this fruit in the box can scarcely be excelled. The berry is meaty and smooth and of melting texture, the interior colors being very marked; around the edges of bright red, which extends about one-third to the center; from this down to the center it is a creamy white. The calyx is small, bright green and spreads well over the end of the berry. Foliage has a spreading habit, is a dark glossy green, rather a long leaf with polished surface. For mating pistillates it is one of the very best, as the flowering season is long and every flower full of strong pollen. For nine years we have been breeding Splendid.

#### Success of One Who Follows the Kellogg Way

**U**NDER date of Belmont, New Hampshire, July 26, 1907, Francis A. Badger writes as follows: "The plants that came from you this spring were heeled in and set May 20th with roots pruned and only a single leaf left on, in checks three feet apart to admit the use of the cultivator both ways; and this was stopped a week ago as the runners were coming freely enough to begin forming hedge rows. Many of the plants cannot be covered with a foot circle in sixty days from setting. I am well satisfied with your plants and methods and find that those who decry Kellogg plants and ways are like the disciple of old—'following afar off.' We are still picking strawberries and will close out the month at it."

#### Thoroughbred Plants in North Dakota

**E.** E. COOK of New England, N. D., writes: "I ordered two hundred Senator Dunlap plants of you in the spring of 1905. It was wholly an experiment, as

most of the wise heads told me they would not grow here. I followed your instructions as nearly as I could in taking care of these plants and the result was gratifying indeed. Such a sight as my patch presented no one ever before saw here, and in 1906 I picked one hundred and thirty-six quarts of the finest berries ever seen in the Northwest."

#### Nothing but Thoroughbreds Suit Him

**A**RKANSAS is becoming famous for its strawberries and we have a long list of customers in that state who will set out nothing but Kellogg's strains. One friend is W. T. Shephard of Gillham, Ark., who writes: "I made \$54.45 from the thousand plants I received from you, and have an entire acre to pick this coming spring (1907). We find that Kellogg's Thoroughbreds are the berries to grow in Arkansas."



Crescent, P. (Female)

**MEDIUM EARLY.** Pistillate. An old favorite with medium-sized crimson berries with rather broad wedge shape, tapering to an obtuse point with a close grained surface and solid flesh—a combination of points which makes it one of the most popular varieties for shipping purposes. Seeds are bright yellow running to brown on the darker side and standing out prominently enough to make a contrast. It has a single calyx that spreads out straight and a neat slender stem. The inner part of the berry is a rich red around the edges, shading down to a lighter color toward the center. It is very juicy and possesses a fine flavor, rather tart. It is a splendid canner, always has been famous as a market berry and adds to its many excellencies that of being a fine producer. Crescent has been under our methods of breeding by selection for twenty-three years and we can recommend it more heartily each year because of the wonderful results it has given.

#### Success Notwithstanding Bad Weather

**W** RITING from Bemus Point, N. Y., July 1, 1907, John P. M. Wilson says: "I received the plants ordered from you in the spring all right, but it was about a month before it got warm enough to set them out. However, I got them set out after awhile and now I am more than pleased with them. A friend of mine has just been here and looked them over and declares they are the finest lot of plants he ever saw in his life, and I know no one around here has anything better."

#### \$310.00 from 1,000 Thoroughbred Plants

**F** ROM James Calder of Clayton, N. Y., a strawberry grower now nearly eighty-five years old, comes the following account of an experience with our plants: "I got 1,000 of your plants in 1903, from which I picked in 1904, 1,000 quarts of berries that averaged 11 1/2 cents a quart; in 1905 I picked 1,100 quarts that averaged 11



Bederwood, B. (Male)

**MEDIUM EARLY.** Bisexual. Produces medium-sized berries of a delicate crimson color, glossy surface and deep yellow seeds. The calyx is small and lies close to the fruit, giving the berries an exceedingly clean and dainty appearance. The flesh is red, shading down to a rich cream color near the heart. Its rich color and delicate flavor make it a popular variety with high-class trade, and as a table berry cannot be excelled. The housekeeper finds it one of the best berries for preserving in different forms for winter use. Exceedingly productive and a good shipper, it is also greatly admired by commercial growers everywhere. Bederwood is famous for its long blooming season, and therefore is exceedingly valuable as a pollinizer for pistillates. Twenty-one years of selection and testing of this variety gives us full confidence in it.

cents a quart, and in 1906 I picked 500 quarts that averaged 13 cents a quart. I kept the plants strictly in the hill. If one died, I set another out of my old bed, which was made up of other kinds of plants, marking the hill. And in that way I found the difference between your plants and the others. There is nothing else like the Kellogg Thoroughbred plants."

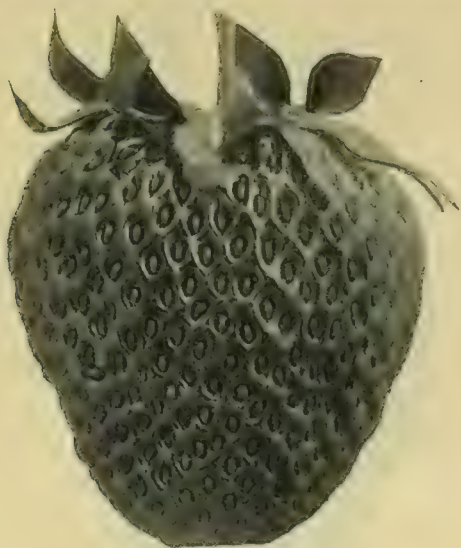
#### Kellogg's Plants Make Clean Patches

**U** NDER date of May 30 G. W. Pryor of Trinway, Ohio, writes as follows: "I am greatly pleased with the plants you sent me last spring. People say I have the cleanest and nicest strawberry patch they ever saw."

#### Pedigree Plants Never Failed Him

**H** AVE used Kellogg Pedigree plants for propagating beds for ten years, and they have never failed me," is the word that comes to use from A. S. Caulkins of Stone Lake, Iowa.





Clyde, B. (Male)



Wolverton, B. (Male)

**MEDIUM.** Bisexual. Very large conical in shape; one side a bright crimson, the other a rich cream, with just enough pink to make it show off well; regular in form and even in season, making the matter of sorting them very easy indeed; the seeds are deeply imbedded in the flesh, seldom coming even with the outer edge. The flesh is of rich pink of fine texture and delicate flavor, and the latter is retained when canned. The berries are firm and hold up well after being shipped a long distance. Clyde is exceedingly prolific, the great waxy berries lying in piles around the plants. Its fruiting season is very long, frequently extending from extra early to very late, with fine fruit at the final picking. This is the fourteenth year of selection in our breeding bed, and we are constantly increasing the acreage given to them in response to popular demand.

**EARLY.** Bisexual. A large crimson berry, top-shaped as the picture shows, but possessed of merits which no photograph can describe. The upper side colors up quite red when fully ripe, while the seeds also are darker than on the under side, where they remain bright yellow in color. These contrasting colors give to the fruit a very unique and attractive appearance indeed. It is one of the richest berries listed and has a fine grained flesh, pink in color, and a mild flavor of great delicacy. The calyx is a double one and very heavy, drooping over the berry in such a way as to make them particularly tempting when served with stems. It can scarcely be excelled as an all-round table berry. It is a great money-maker for the grower who sells direct to consumers and is extremely popular in the strawberry patch. We have had Wolverton in our breeding beds for eighteen years.

#### The Value of Little Plants

**F**REQUENTLY objection is made by purchasers of strawberry plants that they are small. This is largely a matter of the variety to which the plant belongs. Take one of the most popular plants ever grown—the Warfield—as an example. The plants of the Warfield are uniformly small and yet the Warfield is one of the heaviest yielders, one of the hardiest of plants and will persist in producing large crops of fancy fruit under the most discouraging conditions. So in the case of many other varieties, the proof is conclusive that size has very little to do with yield. Indeed, it is frequently true that a large plant by the very fact of its great size indicates its incapacity to produce big yields of berries, because its vegetative parts have been developed at the expense of its fruit-producing organism. The best berry is one that is evenly balanced in its organism, and

fully matures so it will undergo the hardships of transportation and transplanting and be able to develop and sustain a large quantity of fruit.

#### Bad Weather Didn't Discourage His Thoroughbreds

**W**EATHER conditions were most discouraging over a large section of the country in 1907, and many people lost their orchard, bush and vine fruits. But hundreds of customers write us that the Thoroughbreds came out all right, notwithstanding. Here is a typical note from Herbert N. Clark of Raynham, Mass.: "The strawberry plants you sent me about a month ago are highly satisfactory in every way. We tried to follow your directions as closely as possible and the result is that all but two or three of the plants are living and new leaves are coming out."



Warfield, P. (Female)

**EARLY.** Pistillate. One of the most universally popular varieties of strawberries ever grown, combining as it does so many excellent qualities. It has a large, beautiful top-shaped berry with glossy dark-red exterior that does not fade or become dull after picking. The inner part is a rich dark-red clear to the center and exceedingly juicy, just tart enough to be enjoyable. It is one of the most popular berries for canning ever known. The neat slender stem and green calyx join the berry in such a way as to form a short neck, which adds much to the beauty of the fruit. As a shipper it has no superior, as its firmness and bright lustre are retained for days after the berries are picked. The Warfield has a long fruiting season and yields a large picking every day for several weeks, which is one of the features that make it so productive and profitable and hence so popular. This is the twenty-first year of selection in our breeding beds.



Parsons' Beauty, B. (Male)

**MEDIUM.** Bisexual. Produces remarkable yields of bright-red berries of delicious and mild flavor, which is retained after being cooked; few varieties equal it for canning purposes. Its seeds stand out upon the surface of the fruit more prominently than is the case with any other variety we ever have seen, making a striking effect indeed and one which never fails to attract favorable attention on the market. The calyx is rather bushy and the stem is heavy. The foliage is upright in form with a rather long dark-green and leathery leaf. It is one of the best pollenizers of its season, the bloom being extra large and exceedingly rich. The plant makes very long runners. This variety is of universal popularity, succeeding in all soils and under all climatic conditions. We have had it under our methods of selection for six years and it is making such a fine record that we heartily recommend it to all growers.

#### Takes off His Hat to Kellogg Plants

ONE of the enthusiastic strawberry growers of Maryland is Dr. T. Clyde Routson of Buckeystown. The following letter is so interesting and suggestive that we take pleasure in reproducing it here:

"I suppose," he says in a letter dated July 4, 1907, "that you are like the rest of mankind, glad to hear that your customers are pleased with what you sell them. April, 1906, I put out 1,200 Kellogg strawberry plants. I selected seventeen different varieties, as I wanted to test their adaptability to soil and climate.

"This spring we, in common with many other states,

have had unusual weather conditions, and it is really wonderful that we have any fruit at all. More than one morning I found blossoms and buds in a cake of ice, and frost after frost was the order of the day.

"Up to the time (1899) when I entered upon the practice of my profession I was engaged at home in strawberry and fruit culture, but the idea of thoroughbred plants, plant restriction and the more intensive cultural methods, did not appeal to me as of late. The work in my patch of one-sixth of an acre was done with hoe and Planet Jr. hand plow, and an hour or two spent in that way was often a great relief and a diversion from the





Haverland, P. (Female)

**MEDIUM.** Pistillate. A long and large berry, bright crimson where the sun strikes it directly, shading to a light red on the other side, rather full and round at the stem end, gradually tapering to an obtuse point; the seeds are all bright yellow and just prominent enough to add to the handsome appearance of the berry over which the calyx gracefully falls. It would be difficult to find a berry presenting a more tempting appearance in the box than does the Haverland. The foliage is tall, of a spreading habit, with a long dark leaf. This variety sends out large stocky runners and makes strong, vigorous and productive plants. It is notably resistant to frost. After eighteen years of careful breeding of the Haverland and having noted its performance year by year, we can, without hesitation, recommend every grower to give it a large portion of the space in his strawberry fields.



Senator Dunlap, B. (Male)

**MEDIUM TO LATE.** Bisexual. One of the most popular varieties known to the strawberry world, a popularity based upon its extraordinary record. Dunlap is a producer of large and handsome fruit, rich dark-red with glossy finish shading to deep scarlet on the under side and prominent bright yellow seeds that look like gold imbedded in highly colored wax. A strong feature of the fruit is its uniformity in size and shape. The meat is a bright-red, of delicate flavor and exceedingly juicy. The foliage of the Dunlap is tall, bright-green, upright with a long leaf; it develops an unusually heavy crown system, it being no uncommon thing to find hills with fifteen to eighteen crowns. Another strong point is its long flowering season, and the bloom is exceedingly rich in pollen, making it very valuable as a mate to pistillates of even season. This is the tenth year we have bred our strain of Dunlaps and every year shows its increasing popularity.

cares and vexations of a country practice. The soil used was clay, but not very stiff. It had been in potatoes—had a good coat of manure and careful preparation for plants. Thorough cultivation was given, and a dressing of nitrate of soda this spring.

"While to my regret I haven't something big to report, still considering cold weather conditions and five days of foggy, wet weather in mid-ripening season, without so much as a day of sunshine, I felt that the plants did well in number of quarts produced. As to quality—the 'biggest and best flavored berries ever seen,' was the common verdict of my friends and customers. My patch of one-sixth acre yielded 520 quarts; average price, 10.6 cents. Now \$330.00 an acre is not 'big' or unusual, but I take off my hat to Kellogg plants and all they claim for them—if directions are followed.

"The four most productive varieties with me were Haverland, Enormous, Climax, Senator Dunlap in the order named. I measured each variety as picked, so there is no guess-work in my figures. My largest berries were Pride of Michigan, New York, Bubach, Klondike. The largest berry measured  $7\frac{3}{8} \times 6\frac{1}{2}$  inches. Twenty-one of the biggest filled a quart box.

"The question of proper mating is an important one and I feel there is an advantage to be gained by having different varieties in proximity even if they are bisexual. Freaks in blooming are sometimes seen. For instance, my row of Enormous bloomed very late and matured its fruit very rapidly. I had it between Senator Dunlap and New York, but I am of the opinion that it re-



New York, B. (Male)

MEDIUM TO LATE. Bisexual. A veritable Jumbo both in foliage and fruit; shape of berry varies from top-shaped with rather a long point to others that are thick and broad. The color is blood-red with shiny surface, with seeds nearly of the same color, and so deeply set as to be almost invisible. The meat is of smooth texture and the flavor is delicate and mild. It is a strictly fancy berry and one of the most attractive, both in appearance and because of its delicious flavor. It is very prolific and has a long season of ripening and is one of the most profitable varieties either for shipping or the home trade. The foliage is of upright habit and affords ample protection for the great clusters of unusually large and beautiful berries and affords an abundance of strong pollen. This is its eighth year in our breeding beds.



Glen Mary, B. (Male)

MEDIUM. Bisexual. This variety grows big dark-red berries with prominent seeds of bright yellow. The meat is crimson, juicy and rich and of unusually high flavor. The calyx is curly and extends in all directions. The fruit is ideal for canning, preserving or for any other manner of use for the long winter season. As a shipper it equals the best and for this reason is an especial favorite among the more extensive growers who ship their berries a long distance. Another element that makes them thus popular is the fact that its roots are long and bring up plenty of moisture for the plants during dry seasons. The foliage is extra large, growing upright, and is of dark-green color; leaves are nearly round with a glossy surface, making a beautiful appearance in the field. Please notice, however, that Glen Mary is not strong as a pollenizer, and we advise planting this variety near some other bisexual of the same season; every fourth row will be sufficient. This is the eleventh year we have had Glen Mary in our breeding beds.

ceived the bulk of its fertilization from Wm. Belt and Aroma near by, for the bloom of its mates was about over.

"I picked my last berries today, July 4; season from May 19 to this date—the longest and latest I have ever known, and am now getting ready for a second crop."

Thoroughbreds are Grand, says a Cape Cod Customer

WRITING from her home at East Sandwich, Mass., Mrs. Rose J. Holway says: "I am going to write you about my experience with the R. M. Kellogg Thoroughbred Pedigree strawberry plants. I will tell you they are something grand—the most beautiful berries I ever saw and if I had known then what I have learned since, I do not think there would have been any berries

grown like them, so large and handsome. Well, last June, the 4th day, I commenced picking the Texas for a customer for the first quart of berries; but soon had quite a number of baskets. The 8th I began picking the Dornan and Oh! what berries! Every one that saw them said: 'Where did you get those vines to bear such fruit, as I never saw such large strawberries before.' I could have sold three times as many more if I had raised them. Now they are inquiring of my neighbors if Mrs. Holway is going to have some of those great big strawberries. From my little patch I sold \$67.12 worth of berries and grew many more of which I kept no account."





Downing's Bride, P. (Female)

**MEDIUM TO LATE.** Pistillate. One of the most beautiful berries grown and as good as it is beautiful. The berries are dark blood-red almost to the center with just enough white at the heart to make a tempting contrast. Seeds are golden and shiny as if polished. Few varieties excel Downing's Bride in productiveness, the big shining berries lying in piles all along the rows. The foliage grows tall and has a large dark-green leaf which droops over and shades the fruit from the sun's direct rays. The berries remain on the vine in good condition for several days after they are completely ripe and they also keep a long time after picking. This variety forms an abundance of runners and its productiveness and quality on all soils and in all localities are among its strong points. We have been working with Downing's Bride in our breeding beds for six years and have tested it with great thoroughness.



Nick Ohmer, B. (Male.)

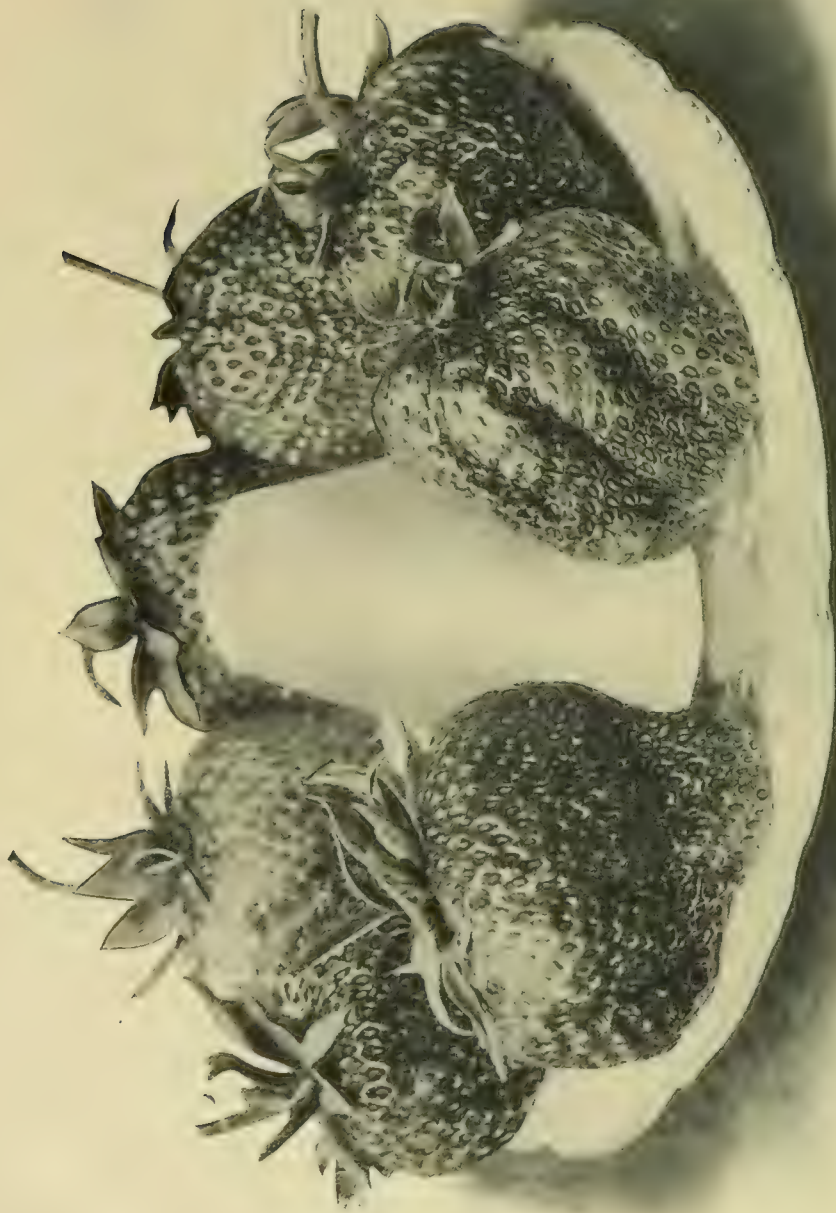
**MEDIUM TO LATE.** Bisexual. Nick Ohmer is noted for its unusually rich flavor. The berries are large cone-shaped, very firm and of rich crimson color which shades down to pink at the center. Most of the seeds are brown, with yellow ones dotted here and there, making a very attractive color combination which is increased by the green calyx that surmounts it. The foliage grows tall, has a dark-green leaf somewhat crinkled. The fruit stems are long and stand up through the foliage, making easy work at picking time. The bloom is large and rich in pollen. These qualities have made Nick Ohmer one of the most popular of varieties, and in the ten years which we have bred this variety there has been a steady increase in the demand for it. With many large commercial growers it is a leading favorite.

#### Thoroughbreds Always Top the Market

FROM S. A. Metcalf of Galveston, Ind., comes the following: "I have been thinking of reporting to you my luck with Kellogg plants. Last season I got quite a nice lot of berries from my new patch, and the people who saw them did not hesitate to say they were the finest they had ever seen. I keep them in sight all the time; couldn't help it, in fact, as the interurban traction line runs along the side of my patch and the traveling public admired them very much. I had samples of the different varieties in our leading business places in town, and received praise for their fine appearance and quality. I sold my berries at 10 cents a quart, when others were selling at 6 1/4 cents a quart. I sold mine right at the patch, and could not supply the demand. Everybody wanted to know how I raised such fine berries. I answered by telling them that my berries were grown on Kellogg Thoroughbred plants."

#### The Best Book on Strawberry Culture

WE take pleasure in reproducing herewith a note of appreciation from R. B. Jennings of Cadillac, Mich. He says: "Your catalog for 1907 lies before me with its many pages of sound logic of the propagation and cultivation of the strawberry, and in that book I perceive that for the past twenty years you have sought to penetrate into the mysteries of that berry of all berries, and have made a success of your experiences. 'Seek and ye shall find;' that saying holds good in your case, for you certainly have placed before the public the best treatise on the propagation and management of the strawberry that ever has been produced. And now you are willing to give the whole world the benefit of your persistent labor free for the asking. It seems to give you pleasure to benefit your fellow men by giving at a glance what it took you a quarter of a century to find out. You have won a great victory and success has attended your efforts scientifically, and you are justly entitled to the laurels that you have won from nature."



A PLATE OF PRIDES OF MICHIGAN AND A DAINTY WAY TO SERVE THEM

JUST make a mould of powdered sugar in a wine glass and turn out in the center of a large plate, surrounding it with such big red berries as are shown here. It makes one of the most attractive dishes imaginable and never fails to win the praise of the guests.





Miller, B.\* (Male)

**MEDIUM TO LATE.** Bisexual. One of the very best varieties for family gardens of its season. Just look at the picture and see what large round berries they are; if the dark red color could also be shown it would take your eye for sure; and when it comes to flavor, they will compare with the very best. The interior is of a smooth, melting texture, exceedingly rich, juicy and sweet; good enough without cream or sugar. Its productiveness and richness make it ideal for home use and family trade, but it is too delicate for shipping. The foliage easily is distinguished from all others; it is a light green, grows very tall and has extra-large coarse leaves. It is not particular as to soils, but seems to succeed everywhere. This is the seventh year we have had it under selection and restriction. Our strain of Miller plants is without an equal. Everyone ordering for home use should include them in the selection.



Enormous, P. (Female)

**MEDIUM TO LATE.** Pistillate. As its name implies this variety grows enormous quantities of enormous berries. The berries are rather broad and wedge shaped with a crimson-colored surface and dark yellow seeds. The calyx is light green and lies flat on the berry and the stem remains bright and green long after the berries are picked, thus aiding to retain a fresh appearance in the fruit after reaching the market. The size is not the only quality of this variety, as the flavor is excellent and the meat a deep pink, very juicy. It is a very popular variety for the family trade and "once a purchaser always a purchaser" is the rule with this old stand-by. The foliage is very large, with a broad, nearly round, light-green leaf and short heavy fruit stems. The demand for Enormous grows year by year, and as this is the thirteenth year of selection and restriction in our breeding beds, our confidence is so great in it that we always advise our friends to be sure to get enough of them for the trade they are bound to develop.

#### Just as Our Catalog Promises

**P**ERHAPS you remember about one year ago, I ordered 200 Thoroughbred Pedigree strawberry plants from you," writes Charles E. Dresser of Akron, Ohio. "At that time I forgot to write and tell you that I received the plants all right and in good condition. They arrived on a Saturday afternoon and, as I had the ground all prepared, I went right to work and set them out; they all grew and did well. The berries were of a dark red color, large, firm and solid, just as the catalogue claimed them to be; I hope I may have as good success this year—1907—as I had last year. My small strawberry patch brought me in \$10.00 in cash as well as many for table use. I love strawberries, and like to work around them, and always like to hear from the big strawberry farm at Three Rivers, Mich."

#### Recommends Kellogg's Thoroughbreds to Everyone

**M.** D. LUTHER of Elgin, Ill., writes us under date of July 31, 1907: "The plants I got of you in 1904 I let bear this summer for the last time, as the ground has become so foul it is impossible to keep it in any kind of shape; but for all this drawback I got a fair crop of very nice berries and as prices were high I realized nearly as much from them as when I had a full crop. I recommend your plants to every one I see who intends putting out strawberries. One of my neighbors bought plants of you last spring on account of seeing mine and I understand another will next spring. I am very much pleased with the success I have had by following your instructions."



Thompson's No. 2, B. (Male)

**MEDIUM EARLY.** Bisexual. Produces bright-red berries in great quantities. They are high in color, rich in flavor and are extra-good shippers, while being extraordinarily strong as pollenizers—a combination of qualities that makes this variety a winner of popular favor. The shape of the berry is almost globular, making a handsome appearance in the box; the skin does not break easily in handling, and the fruit holds its color after being picked. Foliage is dark green and glossy, with a tough tissue that makes it strongly resistant to all leaf-spot, such as rust, blight and mildew. Its bright color and polished effect are retained all through the season. This is the third year we have had it under selection and restriction, and none need hesitate to give this splendid new variety a liberal trial.



Ridgeway, B. (Male)

**MEDIUM TO LATE.** Bisexual. This has a large blood-red berry, round as a cherry and almost as smooth. The seeds are imbedded in the flesh just deeply enough to make a smooth surface, and the combination makes a very handsome berry, whose beauty is not lessened when cut open, as the interior is quite as tempting as the outside. The meat is a scarlet with an oblong ring around the heart almost white. The calyx is small and droops over the berry remaining several days after being picked. The foliage is a tall grower, with dark-green leaves and the runners are extra large and grow long before forming nodes for new plants. This makes the eleventh year we have had Ridgeway under our method of selection, and our strain of this variety is making friends wherever tested.

#### Cultivation Essential to Success

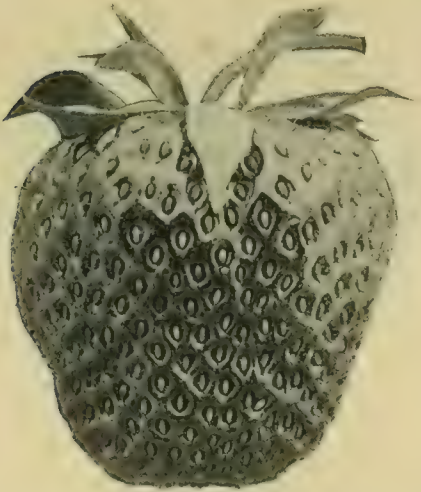
**G**OOD cultural methods cannot be too strongly urged upon the strawberry grower. Having good plants and good soil to start with, nature may be depended upon to do her work, if man will perform his part. It is difficult to lay down absolute rules, as conditions differ so greatly under various circumstances, as to soil, climate, etc. The grower must in large part be governed by his own judgment in very many ways, but there are certain general rules which must be observed. He must never allow the weeds to grow up between his rows of plants, and to keep them down, he must cultivate and hoe; he must bring new supplies of plant food up to the plants, and this the cultivator and the hoe will do; he must conserve the moisture in the soil, and to do this the frequent use of the cultivator and hoe is necessary. On the other hand, too much cultivation tends to encourage vegetative growth at the expense of the fruit-producing organism, and care must be observed to see that this be not done. After you have succeeded in securing a strong fruit-producing organism, should you find in the spring that the foliage is somewhat deficient, apply forty pounds

of nitrate of soda to each acre of plants as soon as growth begins in the spring, and repeat this treatment just before buds open. The result will be a surprising growth of foliage, and a greatly stimulated root development. Remember that cultivation opens up space in the earth furnishing air to bacteria, which in turn, work up the plant food. The moisture in the soil which is preserved for cultivation dissolves the plant food after the bacterial germs have made it available, thus making it of easy access to the plant; and thus are supplied by the simple process of cultivation, moisture, air and food—the three high essentials to the successful development of all plant life. So we say cultivate with intelligence, but cultivate persistently if you would attain high success.

#### \$360 From Less Than Half an Acre

**U**NDER date February 13, 1907, Oliver Black of Pittsburg, Pa., writes: "Last season we sold 3,600 quarts of berries from the 3,000 Thoroughbred plants purchased from you. The highest price received was 15 cents a quart; the lowest 8 cents; the average was 10 cents. They were all fine berries."





Klondike, B. (Male)

**MEDIUM.** Bisexual. This variety is noted for its beautiful and uniform shape and rich blood-red color which extends throughout the entire berry. It cannot be said to be either sweet or sour, but has a mild flavor unlike any other and very delicious; it also is quite juicy. The calyx of this variety is small, curling back towards the stem. The foliage is light-green, tall and compact, with medium-sized leaves, runners form abundantly and plants grow large and develop as many crowns as any variety on our list. Although Klondike is a bisexual variety, it has no great pollenizing power and we advise all customers to set near it another bisexual of the same season. Parson's Beauty or Senator Dunlap would be fine to set with the Klondike. This is the sixth year we have had it in our breeding beds and we can advise our customers everywhere to set largely of this variety.



Wm. Belt, B. (Male)

**MEDIUM TO LATE.** Bisexual. Matures a very large berry of great beauty, bright red, the rich color extending to the heart. It is very rich, juicy and meaty and in every way a desirable berry for table purposes. The yellow seeds only emphasize by contrast the beautiful bright-red surface and give a sparkling effect to the fruit, making it particularly attractive on the market. The calyx is rather small for so large a berry. It has an extra tall light-green foliage, and the berries grow quite evenly distributed throughout the vines. It is an ideal pollenizer and has a long blooming season. This variety varies somewhat in form, but the illustration at the head of the column represents an average type. We have had the Belt in our breeding bed for twelve years constantly developing its strongest points by selection from the healthiest and most vigorous mother plants.

#### Set Plants Only in the Spring

**M**ANY letters reach us from all the country over asking that we deliver our plants throughout the later summer and autumn months. This we uniformly decline to do, because, in the Northern states at least, the risk to anyone in setting plants at any other than the spring season is very great, and it is true that the largest results never are secured from plants that are set in the summer or autumn. The strawberry plant may be compared to a tree, and we all know that trees must have time to build up their fruit-producing organism before they can yield a crop of fruit. In the northern latitudes, from three to four years is required before any fruit from trees is to be had. The strawberry plant must have at least one full growing season free from pollen exhaustion in order to develop its fruit-producing organism to the point where highest results may be had, either as to quality of fruit or quantity of yield.

While it is true that in southern latitudes strawberries may be set with large success in the fall, and while it is also true that in some northern latitudes where all of the conditions are perfect for fall setting, success sometimes may be had with plants, yet the fact remains that to be uniformly successful and to secure the very largest results, plants should be set in the spring as early as soil and weather conditions will permit, and then, by carefully removing all blossoms as they appear, thus allowing all the strength to go to the development of a great crown and strong fruit-producing organism, you may be certain of great yields of fancy fruit.

#### None but Good Plants from Kellogg's

**I** BOUGHT 5,000 plants from you last year," writes P. Pfeiffer of Racine, Wis., "and they grew fine. Do not think I lost thirty out of the entire number."



Lady Thompson, B. (Male)

**EARLY TO LATE.** Bisexual. A bright-red berry, shaped almost like a top and medium large, with the lower end just a little blunt, which makes it rather more beautiful than otherwise it would be. The seeds are red, not very smooth, giving to the fruit a glossy effect. The fruit is solid and meaty, with an exceedingly rich flavor and pink in color. It has a double calyx that opens closely over the berry; the foliage is extra tall and grows upright and has a long light-green leaf. The long fruit stems also stand erect, holding their berries well up from the ground. This variety is a deep rooter and keeps right on growing through the drouth. Runners are long and abundant. Seven years of breeding increases our high opinion of this variety, and the numerous large orders received annually indicate its increasing popularity.



Beidler, P. (Female)

**MEDIUM EARLY.** Pistillate. Very large as to size of fruit and productiveness. Unusually attractive when packed properly for market. In color it is bright red, and in flavor it is exceedingly rich. Solid in texture, it makes an ideal shipper, and the fact that the brightness of color is retained for days after picking insures the berries getting to market in attractive form. Foliage is large and healthy, a tall and upright grower. The heavy fruit stems give it power to hold up well the enormous yields of extra-large berries. It is a medium plant-maker. Thompson's No. 2 makes an ideal mate for the Beidler. We have had the Beidler in our breeding beds for three years, and have bred all the variation in foliage out of it, making it beautiful as well as profitable, and we advise all our friends to give this variety a thorough test.

#### Feeding the Young Plant

**T**HERE is a remarkable correspondence between plant life and animal life, and we may draw many lessons from our experience with the latter that will help us better to understand how best to encourage plant life. It is a principle of science that the young animal shall be fed nourishing food from the beginning of its life, without let or hindrance. There must be no period of rest in the process of its growth; it must move forward from birth to maturity unchecked. This same principle is established in plant life. As the plant gets its food from the soil-particles dissolved by moisture in the soil, the necessity of bringing to the plant new particles of soil laden with plant food and dissolved so that it may be easily assimilated by the plant, is readily seen. Stirring and moving of the soil is one of the processes by which this plant food is supplied constantly to the young plant. It is one of the compensatory laws of nature that the work done in this direction aids to preserve the fertility of the soil, or at least makes the stored-

up fertility in the soil available as plant food. Keep, therefore, an abundant supply of plant food in the soil, both by working it mechanically and adding to it chemically where necessary, and there will be no doubt of the success of your strawberry enterprise.

#### Thoroughbreds Bring Top Prices

**W**RITING under date of March 25, 1907, Albert Packett of Essex Center, Vt., says: "I have been growing strawberries from Kellogg plants for four years. I have not grown any bumper crops yet, but I have grown berries that I never have had to sell for less than 11 cents per basket, with the bulk of the crop at 14 to 16 cents. Last year I received a letter from a man saying he wanted twenty-four quarts of fancy berries and to never mind the price but ship at once if they were fancy. I had Sample and Brandywine, and sent one-half of each, with a bill for \$4.80. He sent me \$5.00 and said he would know where to get his strawberries another year. Pedigree plants is what did the business."





Clark's Seedling, B. (Male)

**MEDIUM EARLY.** Bisexual. One of the leading varieties on the Pacific coast. It is deep red to center, quite large and of beautiful form as shown in picture. It is a splendid canner and shipper; also very productive. The foliage is medium large, dark green and makes lots of runners. Clark's Seedling always brings good prices wherever they are grown, and we should like to have our customers add a few of these plants to their order. This is the third year of selection and restriction in our breeding beds and results are most satisfactory.



Hummer, B. (Male)

**MEDIUM EARLY.** Bisexual. A new variety of great promise. This variety was first discovered some thirty miles north of the Kellogg farms, and though this is its second year only in our breeding beds its splendid performance has won our admiration and confidence, and we have no hesitancy in adding it to our list. Berries are extra large, quite round in form, attractive in color and rich in flavor. It is a good yielder, and its record where grown in past years proves it to be a good shipper. Foliage is light-green, growing tall, and there is good balance between fruit and foliage. The Hummer is a medium plant-maker, producing a stocky and hardy plant with broad leaves. Runners form their first nodes about a foot from the mother plant, making it easily handled in the fruiting bed.

Nothing Else So Good As Our Thoroughbreds

**A**T Monroe, Mich., is the Lavender Fruit Farms, the owner of which is Harry Lavender. Under date of August 5, 1907, he writes us as follows: "You may like to know how I came out with the 600 pedigree plants I set out in the spring of 1906. I need not tell you of the peculiar season we have had; all vegetation is off, as you know; but my 600 pedigree plants did first rate, and 'don't forget it' that this Englishman and his family had their fill of strawberries, first of one kind then of another until it was difficult to decide which was best. Not only this, but we sold a lot of strawberries from the patch at 25 cents per quart. It pays to grade them. We grade all the fruit and put the small over-ripe fruit into cans, and we have a ready sale for them, making more than we do off the finest graded fruit. I shall need a large number of plants for 1908, and I want your plants or none at all, as I am convinced that there is much in what you say as to the pedigree plants."

#### Keep the Propagating Beds Separate

**R**EMEMBER that no strawberry plant that ever has been allowed to fruit should be used for propagating purposes. A majority of our successful strawberry growers find the best way to keep their fields up to high state of productivity is to purchase their plants from reliable plant dealers, whose products may be re-

lied upon, but to those of our friends who would prefer to propagate their own plants, we say, do not fail to separate your propagating bed from your fruiting bed. The plants may be set in your propagating beds just as you would set them for fruiting bed save that you would double the space between plants. But as you are to grow plants instead of fruit, you will permit all runners to mature that start from the crown of the mother plant. In selecting the ground for the propagating bed avoid, low, damp soils, as they are inclined to stimulate unduly the vegetative parts of the plants at the expense of the fruit organism, and plants grown in the heavy damp soil persist in making runners when set in the fruiting beds, while very little fruit results. Select a sand loam for your propagating bed. Make it moderately rich, and see that thorough tillage is given them. Layer the plants so they will root as soon as formed and be very sure to keep them spread out so every leaf will be fully exposed to the sunshine. The cultivator and the hoe must be liberally employed. Use a sharp pointed hoe with which to work close around the plants and thus break up the crust, using great care that the plants be not disturbed. A runner will not develop a large



Marshall, B. (Male)



Aroma, B. (Male)

**LATE.** Bisexual. Marshall is one of the varieties that everybody likes; of extraordinary size, blood-red color and rich aromatic flavor peculiar to itself. This is another of the old friends, for whose plants we never yet have been able to fill the demand. It has the distinction of having taken more premiums at the Boston shows than any other variety, and while strictly a fancy berry it is one of the most universally grown varieties. Marshall is one of the richest berries on our list; the juice is like syrup and almost as sweet as it looks. They are excellent for canning and those who preserve their fruit in the sun consider it a leader in that particular form. The foliage is extra large; is an upright grower with leaves almost as round as a dollar; about one-half of these are light green, while the others are dark-green, and with the big red berries distributed throughout the foliage, the display of colors in the patch is nothing short of gorgeous. We have selected Marshall for fourteen years.

**LATE.** Bisexual. The berries of this variety are very large and bright red to the center. The flavor of the fruit is rich and deliciously aromatic; the flesh is solid and smooth. A very firm berry, which makes an ideal shipper. Its appearance in the box is very attractive, the yellow seeds being very prominent and glossy. Its great productiveness, firm texture and fine flavor have combined to make it one of the most popular berries with the commercial grower and it has the distinction of being a leading late berry in many localities. As a pollinizer for late pistillates it is unexcelled, as the bloom starts to open medium early and continues until quite late. The foliage is a smooth deep-green, of spreading habit, giving the sun a clear right of way to the crowns; its leaves are long, broad and clean. This is the sixteenth year of selection and restriction in our breeding beds, and from the flattering reports received from all parts of the country we can recommend it everywhere.

root system unless it is brought into contact with moist earth, and the node of the plant should be pressed lightly into the earth and a little earth placed just back of the node when going over the patch with the hoe. The propagating bed should be carefully mulched as soon as freezing weather comes in the fall. A plant left to freeze every cold night and thaw out every bright, sunny, winter day, would not be apt to give the grower desired results at fruiting time. We are often asked how many runners a healthy plant will make. That depends upon the variety. Some varieties of strawberries will not make more than fifty. The propagating bed will prove a source of more interest and pleasure to the strawberry grower than almost any other feature of his work. It is the place to study varieties, to learn their habits, and become acquainted with their possibilities.

#### The Number of Plants Required

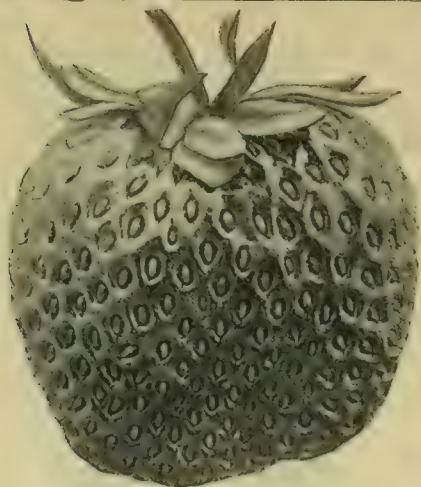
**NUMBER** of plants to set one acre of land is given herewith in various arrangements:

Rows 24 in. apart and 20 in. in the row,	13,160
Rows 30 in. apart and 24 in. in the row,	8,712
Rows 30 in. apart and 30 in. in the row,	6,970
Rows 30 in. apart and 36 in. in the row,	5,808
Rows 34 in. apart and 30 in. in the row,	6,150
Rows 36 in. apart and 30 in. in the row,	5,808
Rows 36 in. apart and 24 in. in the row,	7,275
Rows 42 in. apart and 24 in. in the row,	6,223
Rows 42 in. apart and 20 in. in the row,	7,468
Rows 48 in. apart and 20 in. in the row,	6,534

The first row—20x24 inches—is especially adapted to the home garden, where all cultivation is, of course, to be done with the hoe.



## STRAWBERRIES *and* HOW TO GROW THEM



Rough Rider, B. (Male)

**LATE.** Bisexual. The berries are medium large, of glossy crimson color, which extends through to center; quite juicy and rich. The surface is made glossy by the prominent yellow seeds; for true shape see engraving; the camera can show this much better than we can describe it. There is but little variation, the one shown being a fair average. Rough Rider is quite productive and always gives a better crop the second year of fruiting than the first. Those who turn this variety under after harvesting the first crop have not seen Rough Rider do its best. The foliage is a dark-green with a spreading habit, and easily is controlled in the fruiting bed on account of forming so few runners. Rough Rider has been carefully selected in our breeding beds, for nine years. We have been unable to fill all the orders for our strain of plants, as they have made a record wherever tested.



Gandy, B. (Male)

**LATE.** Bisexual. One of our very latest and largest berries. A beautiful bright-red with a smooth shiny surface and glossy dark-red seeds create a combination of qualities which make it a popular favorite in every state in the Union; especially is this true where the growers have a heavy clay soil, as Gandy is famous for producing results on soil of that order. Another strong point with the Gandy is the fact that it looks as fresh after having been shipped several hundred miles as the hour it was picked, and still another is its delicious flavor. Its lateness always insures the top price. Gandy makes a very tall foliage of dark-green with a broad leathery leaf; its fruit stems are long and strong, holding the berries up above the foliage where the sun gets at them to put on the finishing touches. They remain on the vines for several days after getting thoroughly ripe without deterioration. We have had Gandy under our methods of selection for twenty-three years. The first bloom of Gandy is deficient in pollen, so should be set with some other late variety like Pride of Michigan, Dornan or Aroma.

### Entirely Satisfied With Thoroughbreds

**U**NDER date of May 20, 1907, Alex. Murphy of Mansfield, Mass., writes: "This is to acknowledge receipt of plants which came to hand the 4th of May in fine condition; plants were O. K., but owing to the late spring here they were put in a cool, dry cellar for eight days before we were able to get them set out. Notwithstanding this experience, they are coming along finely and we are entirely satisfied with them and wish to thank you very much."

### More Than \$800 Per Acre

**F**ROM away out in Washington comes this word from William Saunders of Kennydale: "In the spring of 1904 I set 2,000 of your pedigree strawberry plants, and in 1905 picked and marketed \$160 worth of choice berries, all grown on one-fifth of an acre. My varieties were Parson's Beauty, Glen Mary, Senator Dunlap and Dornan."

### Two Hundred Quarts From Two Hundred Plants

**T**WO years ago this spring I sent you an order for 200 strawberry plants, and we were very much pleased with them," writes Mrs. C. W. Gifford of Oriskany Falls, N. Y. "My husband said they were the finest he ever saw. Well, we set them out in the garden and I must say did not care for them as we ought, but they did well—better than we expected. Off from the two hundred plants we picked more than two hundred quarts of fine berries. Our neighbors were very anxious to get them and said they never saw nicer berries anywhere. We shall send an order for more next spring."



Challenge, B. (Male)

**MEDIUM.** Bisexual. One of the most popular varieties for the family trade, with berry extra large but not so uniform and smooth as some others. But the great size, fine color and rich flavor of this variety win for it permanent customers wherever they once are sold. Round in shape and corrugated, they are dark-red with bronze-colored seeds, and they look as if they had been polished when packed nicely in a box. The flesh is a deep crimson, very solid and rich. Popular for the home trade, also is a valuable shipper. Foliage is large, dark-green and spreads out well, giving every berry a chance to develop to full size. We have tested it in many ways on different soils and it thrives finely everywhere. To its other qualities it adds that of great productiveness. This is the sixth year of selection and restriction of the Challenge in our breeding beds.



Bubach, P. (Female)

**LATE.** Pistillate. Famous for its large yields, mammoth in size and beautiful in color. Bubach is a reputation winner, a money-maker and commands the market as do few varieties. The berries are great big meaty fellows with a bright-red and waxy surface; some are conical in shape and others are thick and broad. The inner part is meaty and fine grained. The bright red color of the exterior extends clear through the fruit. It has a large calyx with medium-sized stems. The foliage is a waxy dark-green with spreading habit and very short fruit and leaf stems. Bubach is universally successful. We have tried this variety on sandy loam, on clay and on black soil, and each test gave very satisfactory results. This is the twenty-first year we have been selecting the Bubach in our breeding beds, and the reports sent us by our customers convince us that our strain of Bubachs is unequalled.

#### \$125.00 in Cash from a Quarter Acre

FROM E. W. Catlin, North Yakima, Wash., comes a letter in which he says: "The plants I bought of you in 1905 did finely. I had less than a quarter of an acre, and took off \$125.00 in cash. I put the first berries on the market with the Excelsior, beating Kene-wick and Hood River and my neighbors by ten days, with the result that I got 35 cents a quart for my first berries, did not sell a quart for less than 12½ cents. Will have a half-acre next year."

#### Soils for the Strawberry

IT may be accepted as a rule that the soil that grows a good crop of corn or potatoes will mature an abundant crop of strawberries. Frequently samples of soil are sent to us for our opinion as to its adaptability for strawberry production. As a matter of fact, a sam-

ple of soil indicates very little as to what that soil may accomplish in the way of crop production. Even though a chemical analysis of soil be made, still it is difficult to determine. The soil may be likened to a dish containing food. The quantity of food may be increased in the dish or it may be removed entirely from the dish. Any soil may be treated mechanically so that the plant food already contained in it shall become available, or chemical constituents may be added to the soil in the form of nitrogen, potassium and phosphorus, and thus increase the plant-food content of this dish—the soil. Broadly speaking, the strawberry grower should select a soil that is easily handled and well drained, and which experience has shown will yield a good crop of corn or potatoes or any garden crop. Do not set your plants where moisture lingers after a rain, for though the

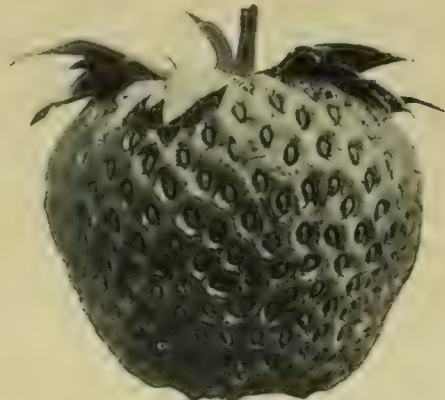


## STRAWBERRIES *and* HOW TO GROW THEM



Arizona, B. (Male)

**MEDIUM EARLY.** Bisexual. Arizona is more nearly related to the "ever-bearing" family of strawberries than any other on our list. This means simply that in warmer climates or where summer lingers until late in the autumn a second crop is grown. But aside from this strong feature this variety possesses great merit, so that even our friends of the northern latitudes, find it excellent for their purpose. It is great as a producer of large-sized, deep-red berries of a rich aromatic flavor which win and hold friends everywhere. The foliage is dark-green of medium size. This is the sixth year that we have had Arizona in our breeding beds, using mother plants for propagating purposes which show the strongest ever-bearing habit.



Midnight, B. (Male)

**LATE.** Bisexual. Midnight stands out among its fellows with striking individuality. It has a large pink berry, broad and thick at the stem end, tapering down to a fine point somewhat wedge shaped. The flesh always is white, having a texture not unlike the white-meated peach. One never ate a richer of sweeter berry; just the kind to grow in family gardens. It is one of the very latest and will prolong the season beyond any other variety on the list. It was called Midnight for the reason that it ripens its berries up to the last hour of the strawberry season. It produces its fine fruit in very large quantities and is an excellent shipper. The foliage is a handsome glossy dark-green of spreading nature; its crowns usually are large and numerous; its lateness in bloom makes it almost immune from frost. As a pollenizer it is ideal. This is the sixth year in our breeding beds.

strawberry is a great drinker of water, it does not do well with wet feet. Avoid cold spring soils, where the ground is saturated much of the time just when your plants should be making their best development. If you would mature your strawberries early, set them on a southerly slope, and if your desire is to have your fruit come on at the latest possible date, set your plants on a southerly slope.

### Thoroughbreds Thrive Through Flood and Drouth

**T**B. DAVID of Clyde, Ark., writes us at length of his experience with Kellogg plants under trying conditions:

"I deem it my duty to tell you my success in raising berries. In the spring of 1903 a neighbor and myself sent to you for a few plants, as we both wanted them for family use. In due time the plants came. I set my part out at once—eight rows across my garden, which is thirty-five yards wide—and cultivated them good under the matted row system. The next spring, 1904, such a patch of berries I never saw. I surely had got the worth of my money! My neighbors said they never had seen anything like them. The season was very wet during the ripening time and there were

lots of them that rotted, for they just lay piled up on top of one another. We gathered and measured seventy-four gallons besides what were eaten in the patch. Well, after they got through bearing I barred them off and chopped them out with the hoe and cultivated them again good, and in the spring of 1905 set out fourteen rows more across my garden, and that was another wet spring and we got about the same number of berries off of my old plants. So last spring, 1906, we had twenty-two rows to pick, but instead of its being wet it was very dry and lots of the berries would just cook in the sun; you might pass by the patch and they would just smell like cooking them on the stove. But we got 145 gallons as it was, and it was one month to a day from the first picking to the last."

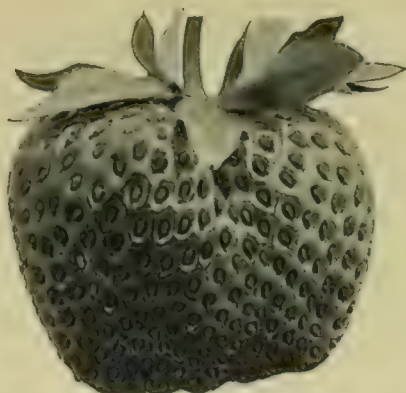
### Meaning of Bud Variation

**W**HEN we speak of bud variation we refer simply to any change in the glands of the plant which will cause it to produce a different fruit. These variations are constantly going on in all trees and plants prop-



Parker Earle, B. (Male)

**LATE.** Bisexual. Especially popular for its extraordinary fruiting power, being recognized everywhere as one of the most productive varieties under cultivation. The berries are of medium size; bright-red color, so bright indeed as to give the fruit a polished effect and this color extends clear through the berry. The flavor is delicious and is the delight of the epicurean lover of the strawberry. The productiveness, lateness and firmness of the Parker Earle make it very popular with large growers. It is especially productive on rich low land, and under this particular circumstance leads all other varieties; a large foliage and late bloom insure it from danger of frosts. This variety makes very few runners, which greatly simplifies the work of the grower, and it is an ideal variety for growth by the hill system. This is the nineteenth year we have had it under careful selection and restriction, always making our selection from ideal ancestors.



Bismarck, B. (Male)

**LATE.** Bisexual. One of the best table berries on the list. Medium-sized light-red berry of most delicate flavor; interior part dark pink, extra rich and meaty. Has bright yellow seeds which stand out prominently. As a producer Bismarck equals any variety of its season, and the berries hold up well when shipped long distances. Bismarck has a spreading foliage and a dark-green glossy leaf very much resembling Bubach. It has a large and perfect bloom and is an ideal mate for pistillates of even season. This variety is a good feeder and the soil should be made quite rich. This is the fourteenth year our strain of these plants has been bred from ideal fruiters, and each year increases its popularity. Bismarck makes an ideal double-hedge row.

agated by buds, cuttings and runners, and lay the foundation for improving them. A plant growing under unfavorable environment and neglect will change for the worse and become weak, while one grown under perfect conditions will naturally grow strong and make changes for the better.

Prof. John B. De Motte, one of the most popular of our scientific lecturers, uses this formula to express the idea: "The constant execution of a definite function gradually effects a structural modification." In other words, properly directed exercise with a definite object in view will develop and make prominent any part of the body of plant or animal and make it permanent so it would be transmitted to offspring. The early horticultural writers taught us that there was no change in plant organism when propagated by buds and runners, but they merely accepted it as a theory without investigation, and nurserymen were forced to encourage this false

teaching because people persisted in buying of those who could furnish the largest trees and plants for the smallest possible sum.

If there were no bud variation you could fruit a strawberry plant forever and get just as good fruit and as much of it every year provided you gave it good tillage and plenty of manure, a proposition so absurd and at such variance with the experience of every berry grower that no intelligent person would accept such teaching for a moment and yet the cheap-John plant growers are still trying to force it down people's throats.

The old Wilson Albany strawberry is often cited to show that there was no such thing as variation in plants. This old variety possessed great constitutional vigor and stood much abuse, yet still held its place for more than forty years as the leading market berry. But bear in mind that there were nearly as many strains of the Wilson as there were berry fields. It was very far from the big, luscious berry introduced by James Wilson of Albany. It did not attain half the size it originally did and when you get the facts concerning its pedigree of



## STRAWBERRIES *and* HOW TO GROW THEM



Sample, P. (Female)

LATE. Pistillate. Sample is not only one of the most beautiful berries among the late varieties, but also is one of the largest in size and in the quantity of its yield. It has an extra large, bright-red, top-shaped berry, the inner part being a deep scarlet, very rich and juicy, also highly flavored. The seeds turn red as the berries ripen and so nearly resemble the color of the berry as to be scarcely visible. The stem and calyx are small and remain a bright green several days after the berries have been picked. Sample is a standard shipper and ranks high as a canner, while as a table berry it has few superiors. One trait of the Sample is its perfect system of coloring a certain percentage of its fruit each day until the season is over; and the bright red is evenly distributed all over the berry. With this combination of fine qualities it is not surprising that the Sample is a universal favorite. This is the twelfth year for Sample in our breeding beds.



Brandywine, B. (Male)

LATE. Bisexual. One of the most universally popular berries known, and it has a popularity rightly won. The berries are immense big fellows deep blood red to the center and possess a flavor peculiar to the variety. It is one of the best canning berries grown. Bright yellow seeds that are very prominent making a beautiful contrast set in the blood-red fruit. The calyx is very large. Not only is Brandywine one of the largest and most beautiful among the late varieties, but is also one of the most productive. The fruit stems grow erect, holding the big berries up from the ground. Foliage is very large and of an upright nature, with a dark-green leathery leaf, which affords good protection for the bloom. Many of these flowers open under the leaves which protect them from late frosts, a feature which all growers recognize as very valuable. This is the fifteenth year Brandywine has been selected in our breeding beds.

the last thirty years of its existence you have conclusive proof that selection and restriction thoroughly carried out would have perpetuated this sterling old variety indefinitely. If you study this subject carefully you will see there is variability in everything possessing life, and that the basis of all improvements is selection and physical manipulation.

### Improvements by Breeding and Selection

IT is a law of nature that any faculty of body or mind which is never used shall be taken away. We must use it or lose it. We send our children to school where their brains will be systematically exercised to acquire power to solve intricate problems. A child never allowed this privilege could never become a mental giant. To develop their muscle and physical powers we send them to the gymnasium.

To develop and bring out a fruit organism in a plant you must exercise it in that direction. It is doing that develops, but note the especial point that excessive doing destroys the tissues. Our asylums are full of people whose brain power has been destroyed by excessive thinking. There are scores of persons who have been ruined by overwork. The friction arising out of it is greater than the gland system can replace.

It is exactly so with the plant. It overworks its fruit producing organism and must be restrained (restricted) to the ability of the gland system to replace the parts worn out, and so long as this is done the plant will grow stronger, but when you pass that line it will grow weaker and waste away.

We propagate continuously from bearing plants, but they are restricted to the point where strength accumulates. For the purpose of securing the betterment of



New Home, B. (Male)

VERY LATE. Bisexual. The berries of this variety are extra large, bright-red and hold their color for several days after being picked. The firmness and keeping qualities of this variety make it one of the most profitable on the list. The seeds are brown and yellow and glossy, giving to the fruit a polished appearance. The flesh is a deep pink and the flavor of the fruit is very rich. This is the third year in which we have bred New Home, and its performance on our farms entirely confirms the splendid reports we have received from many sources. The foliage is light-green and the plants are beautiful and thrifty. We should like to have all our customers give New Home a liberal trial and shall be glad to have them report concerning their experience with it. One grower reports that his seven-year-old boy picked thirty-seven quarts of New Home strawberries in two hours. This grower annually produces strawberries from a field of New Homes of from twenty-five to thirty acres in extent. Our own experience leads us to believe that his report does not exaggerate the facts.

our stock plants as well as in the after multiplication, they are grown under the most favorable conditions known to the horticultural art. Absolutely no expense is spared which in our judgment would contribute to their betterment, and yet under these favorable environments some will improve faster than others, and so the scale of perfection is advanced materially by selection.

We can improve strawberries faster than any other perennial because through runners we get new creations every year, and this suggests the reason for the steadily advancing popularity of the Kellogg strain of strawberry plants.



Pride of Michigan, B. (Male)

LATE. Bisexual. Of all the varieties of strawberries we have ever grown, the Pride of Michigan certainly stands at the head. Handsome in form and color, they are the largest on the market. The color is scarlet with bright-red cheeks—one of the highest colored berries we have seen and of the most delicious flavor we have tasted. The illustration above was made from a photograph showing the actual size and form, but no photographer or artist can do them full justice; only nature can blend and harmonize such delicate colors as appear in this great fruit, and it is quite as impossible for a written description to tell of its fine qualities. We have sold fully one and one-half million plants of this variety and from the enthusiastic letters we are receiving from customers who have fruited it, we know from their experience that it is a prize winner in all soils and in all sections of the country. Pride of Michigan is unusually productive. The berries lie in windrows and the heavy, dense foliage spreads out wide enough to shade them. It is a splendid shipper, an excellent canner and it never sells in competition with other berries, but stands in a class of its own. It makes just about enough runner plants to form a good, heavy fruit row, which saves the grower a lot of work, and at \$8.00 per thousand for Kellogg's strain of plants is one of the best investments any grower can make; and ours is the only nursery that can furnish pure plants of this variety. For six years we have had it in our fruiting beds, where the most careful selections have been made. Note the big plate of Pride of Michigan on Page 44. Nothing more attractive on the market or more delicious on the table ever has been produced in the fruit line than this wonderful twentieth-century strawberry.





Cardinal, P. (Female)

LATE. Pistillate. Ever since the origination of the Cardinal, we have read of its remarkable productiveness and strong qualities with great interest, and, we confess, we were somewhat of a doubting Thomas. We hardly believed it possible that any variety could be as good as the Cardinal was said to be. Before offering any of the plants for sale to our friends we decided to make a thorough test of this variety, and so planted them in our experimental beds, mating them with Stevens' Late Champion. From the time the plants were set we watched their development closely, and their beautiful large dark-green and glossy foliage convinced us that they possessed extraordinary power as foliage makers. When the plants came into bloom the massive foliage was almost hidden by the white flowers, and notwithstanding the fact that we had numerous severe frosts while they were in full bloom, we failed to discover a blossom that had been affected by the frost. But when the fruit began to ripen we knew then that half had never been told of the virtues of the Cardinal. The fruit grows in clusters like cherries (see Page 33); the berries are very large, of a deep cardinal-red, with very dark flesh; have a delicious flavor and will stand shipping well. Every experiment station in the country where Cardinal has been tested has reported it as the best. It is doubtless one of the greatest late pistillates ever originated. We have given the Cardinal a thorough trial and find it an ideal berry in every respect. As we have said, the foliage is exceedingly large, has tough leaf-tissues and is not susceptible to leaf-spot. It makes long strong runners, and if the plants are set three feet apart in the row they will easily fill in the row, for single-hedge, double-hedge or narrow-matted row system. In 1907 we picked fruit from the vines up to July 6. It has a long season of ripening and is exceedingly productive.



Stevens' Late Champion, B. (Male)

LATE. Bisexual. Last year we were much impressed with the performance of this variety, and realizing that there exists such a great demand for late varieties that produce bumper yields of big red berries which will stand up well under long distance shipping, we tested it in our 1907 fruiting beds with even greater thoroughness than is usual. We are now very glad we did so, as it gave us opportunity to discover the real merits of this splendid variety; and we know our customers will find in Stevens' Late Champion a berry that will fill their highest ideals, both as to quantity and quality of fruit. With us this variety ripened its fruit as late as the Gandy, and was easily twice as productive. Berries are good shippers, large as to size, dark red, exceedingly rich in flavor, and it is sure to be one of the leading late market varieties. If there is any one berry on our list that will keep its berries clean without mulching, it is Stevens' Late Champion, and this is because it has the strongest fruit stems we have ever seen, and holds its fruit erect and entirely free from the ground. It is seldom the stems droop sufficiently to allow the berries to lie on the earth. However, with all this advantage we say mulch wherever mulching material may be obtained. The Champion makes long strong runners and lots of them. It is a powerful bisexual with great quantities of pollen, just the fellow to set along with such late varieties as Cardinal. We have said so much about the Champion and described its good points thus completely in the hope that every one of our customers may give them a good trial. This is the third year we have had this variety in our breeding beds, so that all may depend upon the strain being pure and free from disease and insects. See Page 21 and note how the berries show up when prepared for the table.



Mark Hanna, P. (Female)

MEDIUM TO QUITE LATE. Pistillate. A large and most beautiful bright-red berry with sparkling yellow seeds and light-green calyx. The flesh is scarlet, solid and very rich. As a producer it certainly is a prize winner; the big berries are in clusters like cherries. We wish their brilliant color also could be shown, then everybody would agree with us that Mark Hanna is a handsome berry. It has a flavor peculiar to itself, somewhat on the cherry order. The foliage grows tall and droops over to each side of the row, spreading apart in the middle of the row, thus allowing the berries which grow in the center to color evenly, the same as those on the outer edge. They require no petting, but will give a big crop of fancy berries under ordinary conditions. This is the fifth year of selection in our breeding beds and it is rapidly gaining in all points.



President, P. (Female)

VERY LATE. Pistillate. Speaking of presidents we have one of our own that wins out in every campaign. This particular President is beautiful in shape and its unusual colors of mottled pink and red which extends entirely through the berry, make it a tempting sight when neatly packed in the box. All who have grown this fruit send in another order and those who only see the fruit admire and purchase it. The berry is almost round and every one of them has a dimpled end. The calyx is unusually small for so large a berry; seeds are brown and yellow, giving a sparkling effect to the berry. It is very rich and meaty and is served most attractively when placed upon the table with stems still remaining. The President makes a very large foliage of light green, and its bloom is larger than is generally found on pistillates. This is the fifth year of selection and restriction and its strong points grow more apparent as we come to know it better.

#### Found Thoroughbreds Entirely Satisfactory

THE plants you sent me two years ago, were very satisfactory," writes R. E. Roberts of Emerson, Ohio. "The Haverlands lay in handfuls along the row. We picked thirty-two quarts at one picking from one row of Bubach composed of 110 plants. I had only fifty plants of Glen Mary, off which we picked eighty-two quarts of the finest strawberries I ever saw."

#### Pays to get the Best Only

UNDER date July 2, 1907, A. A. Wattnar of Canby, Minn., writes: "The strawberry plants received from you this spring are doing well. Everything was late here this season. When the plants arrived here there was a snow storm in progress and plenty of snow

on the ground, so I kept them in the cellar about a week; yet ninety-seven out of the hundred plants are doing finely. I can plainly see that it does pay to buy only the good kind of strawberry plants. Shall send another order later."

#### Old Customers are Growing Customers

ONE gratifying fact about our business is the way in which our old customers come to us year after year. Under date June 30, 1907, one gentleman wrote us from Brooklyn, N. Y., the following: "I shall prepare ground this fall for several thousand plants to be set next spring. I am one of the firm of D & C., who bought in 1905 forty-three thousand plants from your company."





Oregon Iron Clad, B. (Male)

**VERY LATE.** Bisexual. An extra large broad-shaped berry of a glossy dark-red that extends through to the center. It is very productive, has a delicious flavor and is strong as a shipper, qualities which make it a popular variety among extensive growers. The seeds are bright yellow and remain so no matter how ripe the berry gets. The fruit retains its brilliant color for days after being picked and the calyx also remains fresh and green. The calyx joins the berry in such a way as to form rather a long neck, drooping over the latter in the form of a pointed collar. The foliage is extra large, light-green and tall; the fruit stems are of more than ordinary length, holding the clusters of berries out in full view. The Iron Clads stand very erect until the fruit starts ripening, when the weight of the heavy fruit gradually pulls them down until the berries rest on the clean mulching. This makes picking an easy job, but selling the fruit is still easier. This is the sixth year of selection and its strong points grow more apparent each year.



Dornan, B. (Male)

**LATE.** Bisexual. This variety grows an extra large berry, the shape of which is seen in the illustration above. It is dark-red on the upper side, shading to a bright-red on the other; seeds are red and yellow. It is one of the meatiest and richest berries we have ever tasted; the inside is deep pink, shaded down to almost a white center. The meat is smooth as velvet and absolutely free from any gritty substance. It has a large double calyx and like the berry this remains fresh and bright for days after being picked. Dornan is famous for its delicate rich sub-acid flavor, which makes it possible to smother it in cream without affecting the digestion. The foliage is dark-green of a waxy appearance, very large, vigorous grower and of upright habit. The roots go deeply down, bringing up plenty of moisture, which keeps everything moving at the right season. It has a large bloom and is a valuable pollinizer for pistillates. Dornan has been in our breeding beds for nine years.

#### Pride of Michigan Her Favorite

**I** WANT to tell you how nice my plants are that I got of you last May," writes Mrs. A. J. McClurg of Carlisle, Ind. "The Pride of Michigan pleased me most of all, for of all the berries I ever worked with they are the nicest."

825 Quarts from 700 Plants

**H**AVE just finished picking my first crop of strawberries from the 700 Thoroughbred plants bought of you in 1906," writes E. W. Sluder of Leicester, N. C., under date June 26, 1907, "and am highly pleased.

Although the frost and cold weather this spring injured my berry crop some, I picked from my patch 825 quarts, which I sold at 10, 12½ and 15 cents per quart.

#### Kellogg's Berries Sell at a Premium

**H.** E. HARRISON of Appleton, Wis., writes as follows: "The retail prices of strawberries at Appleton were 10 to 12 cents per quart box, but I sold my Kellogg berries for from 15 to 17 cents per box. There was but one trouble with my berries—I did not have enough of them for my customers."

# PRICE LIST OF STRAWBERRY PLANTS

Read Carefully Before Making Out Your Order

WHEN 500 or more plants of one variety are ordered we give thousand rates on that variety; but we do not permit customers to combine several varieties to make the number of plants 500 in order to secure thousand rates. There are no discounts on the prices given. We leave nothing undone in order to grow the best plants possible, and the prices quoted are the lowest at which they can be furnished. When plants are to be sent by mail, add at the rate of 25 cents per hundred plants to the list prices given, and if plants are to be sent to Canada add at the rate of 50 cents per hundred. No orders accepted for less than one dollar, and no fewer than 25 plants of any variety will be sold. Be very careful to get the prices right.

## EXTRA EARLY VARIETIES

VARIETIES	25 Plants	50 Plants	100 Plants	200 Plants	300 Plants	400 Plants	500 Plants	1000 Plants
Excelsior (B) .....	\$0 25	\$0 35	\$0 55	\$0 85	\$1 10	\$1 30	\$1 50	\$3 00
August Luther (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Climax (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Michel's Early (B) .....	25	35	55	85	1 10	1 30	1 50	3 00
Texas (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00

## EARLY VARIETIES

Bederwood (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Clyde (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Lovett (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Tennessee Prolific (B) .....	25	35	55	85	1 10	1 30	1 50	3 00
Wolverton (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Crescent (P) .....	25	35	55	85	1 10	1 30	1 50	3 00
Warfield (P) .....	25	35	55	85	1 10	1 30	1 50	3 00

## MEDIUM VARIETIES

Lady Thompson (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Ridgeway (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Glen Mary (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Wm. Belt (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Splendid (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Parsons' Beauty (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Klondike (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Miller (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Nick Ohmer (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
New York (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Thompson's No. 2 (B) .....	60	1 00	1 50	2 50	3 50	4 25	5 00	10 00
Beidler (P) .....	60	1 00	1 50	2 50	3 50	4 25	5 00	10 00
Senator Dunlap (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Haverland (P) .....	25	40	65	1 00	1 35	1 60	1 75	3 50



## PRICE LIST OF STRAWBERRY PLANTS—Continued

### MEDIUM VARIETIES

VARIETIES	25 Plants	50 Plants	100 Plants	200 Plants	300 Plants	400 Plants	500 Plants	1000 Plants
Enormous (P) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Downing's Bride (P) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00
President (P) .....	50	85	1 25	2 10	2 85	3 50	4 00	8 00
Clark's Seedling (B) .....	50	85	1 25	2 40	2 55	3 50	4 00	8 00
Challenge (B) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00
Arizona Ever-Bearing (B) ..	50	85	1 25	2 10	2 85	3 50	4 00	8 00
Hummer (B) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00

### LATE VARIETIES

Aroma (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Pride of Michigan (B) .....	50	85	1 25	2 10	2 85	3 50	4 00	8 00
Brandywine (B) .....	25	40	65	1 00	1 35	1 60	1 75	3 50
Bismarck (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Gandy (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Dornan (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Marshall (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Parker Earle (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Rough Rider (B) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Bubach (P) .....	30	45	70	1 10	1 50	1 80	2 00	4 00
Sample (P) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
New Home (B) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00
Oregon Iron Clad (B) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00
Midnight (B) .....	35	50	85	1 35	1 85	2 25	2 50	5 00
Mark Hanna (P) .....	40	60	1 15	1 80	2 35	2 75	3 00	6 00
Stevens' Late Champion (B) ..	50	85	1 25	2 10	2 85	3 50	4 00	8 00
Cardinal (P) .....	75	1 25	2 00	3 00	4 25	5 25	6 00	12 00

### PRICE LIST OF BERRY GROWER'S TOOLS

Twelve-Tooth Cultivator, complete .....	\$ 9 50
Rolling Runner Cutter and Leaf Guard .....	1 85
Dibbles, 35c each; three for .....	1 00

**T**HE DIBBLE AND RUNNER CUTTER may be shipped with plants when sent by express or freight, but neither of them is permitted to go through the mails. Therefore, do not order plants and Dibble or other tools to go together by mail. Another thing, we always pack the Dibble in a box of plants when possible. Please do not write us that the Dibble you ordered has not been sent until after you have made a thorough search in the box and failed to find it.

# RESERVE COPY OF YOUR ORDER ON THIS SHEET

No not tear out this leaf, but retain it for future reference.  
We enclose a separate order sheet which should be used in  
sending in your order. And be sure to send it early.

Name \_\_\_\_\_

Very Plain

Post Office \_\_\_\_\_ Rural Route \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_

Name of town for \_\_\_\_\_  
Freight or Express \_\_\_\_\_

Ship by \_\_\_\_\_  
Say whether to be sent by freight, express or mail

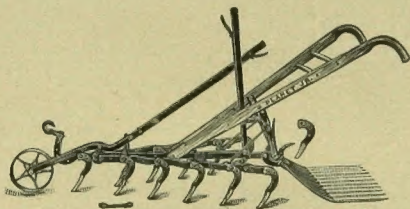
No. of Plants	VARIETY	\$	Cts.	No. of Plants	VARIETY	\$	Cts.
	<b>EXTRA EARLY</b>				<b>MEDIUM</b>		
.....	Excelsior (B) .....			.....	Challenge (B) .....		
.....	August Luther (B) .....			.....	Arizona Ever-Bearing (B) .....		
.....	Climax (B) .....			.....	Hummer (B) .....		
.....	Michel's Early (B) .....				<b>LATE</b>		
.....	Texas (B) .....			.....	Aroma (B) .....		
	<b>EARLY</b>			.....	Pride of Michigan (B) .....		
.....	Bederwood (B) .....			.....	Brandywine (B) .....		
.....	Clyde (B) .....			.....	Bismarck (B) .....		
.....	Lovett (B) .....			.....	Gandy (B) .....		
.....	Tennessee Prolific (B) .....			.....	Dornan (B) .....		
.....	Wolverton (B) .....			.....	Marshall (B) .....		
.....	Crescent (P) .....			.....	Parker Earle (B) .....		
.....	Warfield (P) .....			.....	Rough Rider (B) .....		
	<b>MEDIUM</b>			.....	Bubach (P) .....		
.....	Lady Thompson (B) .....			.....	Sample (P) .....		
.....	Ridgeway (B) .....			.....	New Home (B) .....		
.....	Glen Mary (B) .....			.....	Oregon Iron Clad (B) .....		
.....	Wm. Belt (B) .....			.....	Midnight (B) .....		
.....	Splendid (B) .....			.....	Mark Hanna (P) .....		
.....	Parsons' Beauty (B) .....			.....	Stevens' Late Champion (B) .....		
.....	Klondike (B) .....			.....	Cardinal (P) .....		
.....	Miller (B) .....			.....	Twelve-Tooth Cultivator .....		
.....	Nick Ohmer (B) .....			.....	Rolling Runner Cutter .....		
.....	New York (B) .....			.....	Dibbles .....		
.....	Thompson's No. 2 (B) .....						
.....	Beidler (P) .....						
.....	Senator Dunlap (B) .....						
.....	Haverland (P) .....						
.....	Enormous (P) .....						
.....	Downing's Bride (P) .....						
.....	President (P) .....						
.....	Clark's Seedling (B) .....						
	<b>Total First Column</b>				<b>Amount in First Column</b>		
					<b>Total Amount of Order</b>		
					<b>Remittance With Order</b>		
					<b>Balance Due</b>		



# The Tools That Help Make The Kellogg Strain of Plants Famous

## PLANET JR. TWELVE-TOOTH CULTIVATOR

IN the Planet Jr. Twelve-tooth Cultivator we have an implement with a chisel-shaped tooth that will cut every particle of the surface close up to the plant without throwing any dirt upon the plant. The wheel in front and lever behind admits of the tool being so adjusted as to cut the soil to an even depth throughout, no matter how uneven the surface may be. When you wish to change the depth of the cut, simply regulate the wheel with the lever and the lever behind as shown in the engraving, and this change,

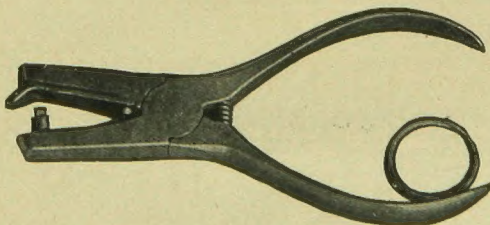


Complete as Shown in Cut \$9.50  
Weight when packed 74 pounds

made in an instant of time, changes the whole operation.

You will observe that the frame of this cultivator is V-shaped. The frame is adjustable and may be made to cut a broad or narrow strip as you desire, which, as all growers know, is important, admitting, as it does, of regulating the action of the cultivator to suit the width of the space between the rows. The change may be made without stopping the horse.

## THE BERRY PICKER'S PUNCH



Price Postpaid 50 cents

With this punch the berry grower may keep an accurate record of all berries picked.

## THE DIBBLE

THE best tool in all the world for setting strawberry and vegetable plants. The blade is of bright steel; it is ten inches long by four inches wide, and ground to an edge on lower bevels; it is twelve and one-half inches long from handle to point, and weighs nearly two pounds. We set about 100 acres of plants with them annually and they are the most satisfactory tool ever used on our farms. Some of the advantages in using this dibble over any other way are—first, the plant is put into the opening before the dibble is withdrawn, preventing the soil from becoming dry; the dibble prevents the dirt from falling into the opening until the plant is put into proper place and the opening is large enough to admit the spreading of all roots so that every root may come in contact with the moist soil; the dibble is so sharp that it is easily pressed into any soil without tiring the hand. They may be sent with plants that go by freight or express, but cannot be sent by mail.

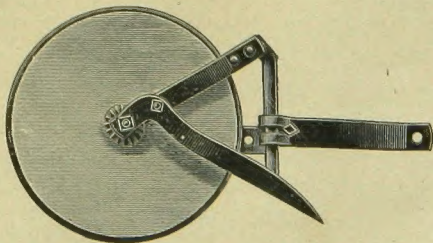


35 cents each, 3 for \$1.00

Remember you have our guarantee that these dibles are first-class in every respect, so you safely may include them in your order.

## THE ROLLING RUNNER CUTTER

LATE in the summer when the strawberry plants begin to send out runners with such rapidity, the runner cutter will be found a great aid



Price \$1.85. May be Shipped with Plants  
that go by Express or Freight

in keeping the runners from getting the start of the grower. Simply attach it to the frame of a Planet Jr. Twelve-tooth Cultivator.

**R. M. KELLOGG & COMPANY** THREE RIVERS MICHIGAN



# TABLE OF CONTENTS

	Page		Page
Agents, none employed by R. M. Kellogg Co., 2nd cover		Mating pistillate varieties	7
Appreciative words from visitors	30	Importance of, example given	7
Arsenate of lead, formula for	19	Meaning of Bud variation	53
When to use	19	Mildew, remedy for	20
Bees and Strawberries	23	Mulching strawberry plants	13
Berry Pickers Punch	63	Important results of	13
Bordeaux Mixture, formula for	20	When to mulch in the North	14
Combined with Paris green	19	When to mulch in the South	14
When to use	20	Materials for	14
Burning over the Strawberry field	21	Opportunity in strawberries, the	22
Canadian Customers, of interest to	26	Packing the strawberries	17
Chickens and Strawberries	22	Paris green, formula for	19
Chickens as insect-destroyers	23	Combined with Bordeaux mixture	19
Chicken droppings, valuable as fertilizer	22	Peltier, Sidney W. letter from	30
Claims of customers	3rd cover	Picking the strawberries	16
Commercial fertilizer for strawberries, formula for	6	Pioneer work in Horticulture	32
Cultivating in both directions through the rows	6	Planet Jr. cultivator	11-63
Cultivation of plants	10	Potatoes and strawberries	24
Results accomplished by	11	Preparing for second crop	20
When and how to cultivate	11	Burning over the field	21
Dibble	9-63	Narrowing down the rows	21
Exchange of pollen between bisexuals	8	Sorting out weak plants	21
Family strawberry patch, the	24	Pruning the plant roots	6
Fruiting bed, cultivating the	16	Removing blossoms	10
Weeding the	15	Rose-chaffer, remedy for	19
Gardner, V. R. letter from	30	Rules regarding part-pay orders	2nd cover
Helping plants through the mulching	15	Setting strawberry plants	9
Hobart, F. G., letter from	30	Sexual side of plants, the	31
Hoeling strawberry plants	12	Some things we do not do	22
How to prepare the soil	5	Spraying the strawberry plants	18
Improvement by breeding and selection	55	What to spray with	18
Increasing the value of a farm	27	How and when to spray	19
Kind of plants to set, the	4	Object of	20
Kellogg Way, the	2	Substitution of varieties	3rd cover
Layering runner plants	12	Terms under which we sell plants	3rd cover
Leaf eating insects, remedies for	19	Testing out varieties for yourself	25
Liver of Sulphur, formula for	5	Watering strawberry plants	32
Manure, when to apply	20	Way to success, the	1
Marketing the berries	18	What we guarantee	3rd cover
Marking out the rows	6	Women as strawberry specialists	26

## ILLUSTRATIONS

A royal feast—dish of Steven's late champions	21	Mark Hannas and shredded wheat biscuit	17
Berry Picker's Punch	63	Marking out rows on the Kellogg farm	24
Bisbee, George S. thoroughbreds among oranges at Pomona, California	10	Muck, U. G., patch of thoroughbreds at Dor-rance, Kans.	30
Blossoms of male and female plants	14	Narrow matted rows	28
Bolt, C. S., berry field at Bancroft, Mich.	22	Object lessons in breeding	4
Climax makes delicious strawberry shortcake	25	Record breaking Queen of the Dairy	4
Cluster of Cardinals, A	33	Two Plymouth Rock Hens and their records	16
Dilts, C. E., commercial strawberry field of, Thorn-ville, Ohio	9	Pennypacker, W. Ellis, thoroughbreds in field at Burchrunville, Pa.	11
Different systems of growing plants	28	Quart box of Haverlands	27
Dish of Glen Marys	29	Record breaking Queen of the Dairy	4
Dish of Pride of Michigan, A	44	R. M. Kellogg Co's. Mailing department getting out its daily budget	3
Double hedge row	28	R. M. Kellogg Co's., Office	3
Finnegan, A. H., thoroughbreds among the Oregon pines	7	Rolling Runner Cutter	63
Giffin, James W., thoroughbreds at Charleston, Ill.	19	Rutan, C. F., thoroughbreds at North Benning-ton, Vt.	24
Grecian, G. W., strawberries in an orchard, Riverside, Iowa	6	Scott, R. J., patch of thoroughbreds at Kins-man, Ohio	26
Hagerman, J. A., scene in strawberry field at Seaton, Ill.	5	Single hedge row	28
Hazlett, George, chickens and strawberries at Dayton, Ind.	23	Spraying on the Kellogg farms	12
Kellogg's hoeing brigade	8	Steward, H., one plant from field at Myrtle Point, Oregon	20
Kellogg's thoroughbred mother plant	2	Three systems of growing plants	28
Kerlin, L. M., a wagon load of thoroughbreds at Liverpool, Pa.	15	Trio of Downing's Brides	18
		Two remarkable hens and their records	16

## DESCRIPTIONS AND ILLUSTRATIONS OF VARIETIES

Arizona	53	Excelsior	34	Parker Earle	54
Aroma	50	Gandy	51	Parsons' Beauty	40
August Luther	35	Glen Mary	42	President	58
Bederwood	38	Haverland	41	Pride of Michigan	56
Beldier	48	Hummer	49	Ridgeway	46
Bismarck	54	Klondike	47	Rough Rider	51
Brandywine	55	Lady Thompson	48	Sample	55
Bubach	52	Lovett	36	Senator Dunlap	41
Cardinal	57	Mark Hanna	58	Splendid	37
Challenge	52	Marshall	50	Stevens' Late Champion	57
Clark's Seedling	49	Michel's Early	35	Tennessee Prolific	37
Climax	34	Midnight	53	Texas	36
Clyde	39	Miller	45	Thompson's No. 2	46
Crescent	38	New Home	46	Warfield	40
Downing's Bride	43	New York	42	Wm. Belt	47
Dornan	50	Nick Ohmer	43	Wolverton	39
Enormous	45	Oregon Iron Clad	59		



**READ CAREFULLY** both of the inside cover pages of this book before making out your order and see that you conform to our rules and thus avoid making mistakes. We are exceedingly desirous that all our patrons shall visit our farms, because everyone who visits us becomes thoroughly satisfied that we do everything we claim. Please consider this a personal invitation.

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**TRANSPORTATION OF PLANTS**—We ship by three methods—express, mail and freight.

In any and all of them we have ample facilities for quick handling. But we earnestly advise our patrons to have their plants go by express or mail, for even though the cost appear to be greater than by freight, in the total results it will be found the less expensive way, because expressed plants will be rushed through to you and will be set out and growing before those shipped by freight could reach you. We have shipped plants by freight successfully to the Pacific coast, but the risk is great, and we urge that all large orders go by express. Small packages may go by mail. Express charges are 20 per cent. less than for general merchandise to any part of the country. All small orders are generally cheaper by express than freight, as only pound rates are charged, while railroads charge for one hundred pounds without regard to weight when sent by freight. When plants are to be sent by mail, add to your remittance at the rate of 25 cents per hundred to the list-price given; and when plants are to go to Canada at the rate of 50 cents per hundred. The plants are packed in moss and go with entire safety to any part of the United States and Canada, arriving in perfect condition. We send plants by mail only at prices given for twenty-five, fifty and one hundred plants, and not at thousand rates. Do not send money to pay freight or express charges. You pay these when you get the plants.

**WHAT WE GUARANTEE**—We send plants to the most distant states with entire success to anybody and everybody who orders them. We are exceedingly anxious that they shall meet your highest expectations, and to this end do all in our power to contribute to success. We guarantee our plants to be in first class condition when they leave our farms. But after they are delivered to express companies or railroads, they belong to the purchasers and we have no control over them. We do not know what treatment they are to receive, hence you can readily see why we cannot, and do not, guarantee any results whatever. Our responsibility ceases when the plants are delivered to the express or railway companies or at the post-office. Our plants are propagated in special beds and carefully labeled when taken up. This would seem to preclude the possibility of mistakes, and we guarantee plants to be true to label, with the express understanding that if a mistake occurs we are not to be held for any damages beyond the amount received for the plants.

**ORDER EARLY**—All orders are filed in the rotation in which they are received. The earlier they come in the more certain will be the patron of securing the plants of his choice. Orders for early

shipment are best, too, for the reason that the plants when dormant are in better form to transport and transplant. No order will be filled for less than \$1, as the cost of handling is too great when the number of plants is less.

**SUBSTITUTION**—It is our purpose to supply each customer with the varieties of plants he orders, and every reasonable effort is made to that end, but it occurs sometimes that the particular variety one desires is completely sold out before the order is received. If no substitution is permitted, we are obliged to disappoint the customer and return the money. There are several varieties of the same season and of equal value, and if we are out of the variety ordered, unless you expressly state "no substitution," we shall understand you desire your order filled with other varieties. There is very little danger of failure to get varieties desired if orders are sent in early, but you should say in your order whether we may substitute should it become necessary to do so.

**MAKE UP A CLUB**—You can join with your neighbors in getting up a club and get the benefit of thousand rates on all varieties of which five hundred or more of each kind are ordered. The club order must be shipped to one address. Each bundle of 25 plants being labeled, the division easily is made. Catalogues will be sent to any of your neighbors on request to aid in making up the club.

**OUR TERMS**—Cash must accompany each order or it will not be booked. If not convenient to remit the entire amount at time order is sent in, remit not less than one-third of the entire sum required to cover order, and your order will be filed and plants reserved for you; the balance due to be paid, however, before plants are shipped. We send plants to nobody, no matter what his financial standing, until the cash is in hand. We send plants C. O. D. to no one under any circumstances. Do not ask it.

**CLAIMS**—All claims should be made within five days after the receipt of plants. They will be promptly investigated and if found to be just and right, will be as promptly adjusted. If you fail to hear from us promptly after sending in an order, so advise us, as we acknowledge all orders as soon as possible after their receipt. And in writing always advise us as to the way money was sent, the size of the order, etc. Be sure to see that your full name and address, clearly written, are attached to all communications.

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**THE STRAIN OF PLANTS WE OFFER** is propagated from ideal mother plants. We are confident that they are the only plants propagated in this manner obtainable and that their fruiting vigor cannot be equalled. While we practice the best methods of cultivation known, we have demonstrated that the vigor of our plants is the real basis of our success, and all who use them will find this to be true.



